

# Watershed Model Schematic

Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2010 by Autodesk, Inc. v9.25

BV N°1



## Legend

<u>Hyd.</u>	<u>Origin</u>	<u>Description</u>
1	Rational	BV N°1

# Hydrograph Report

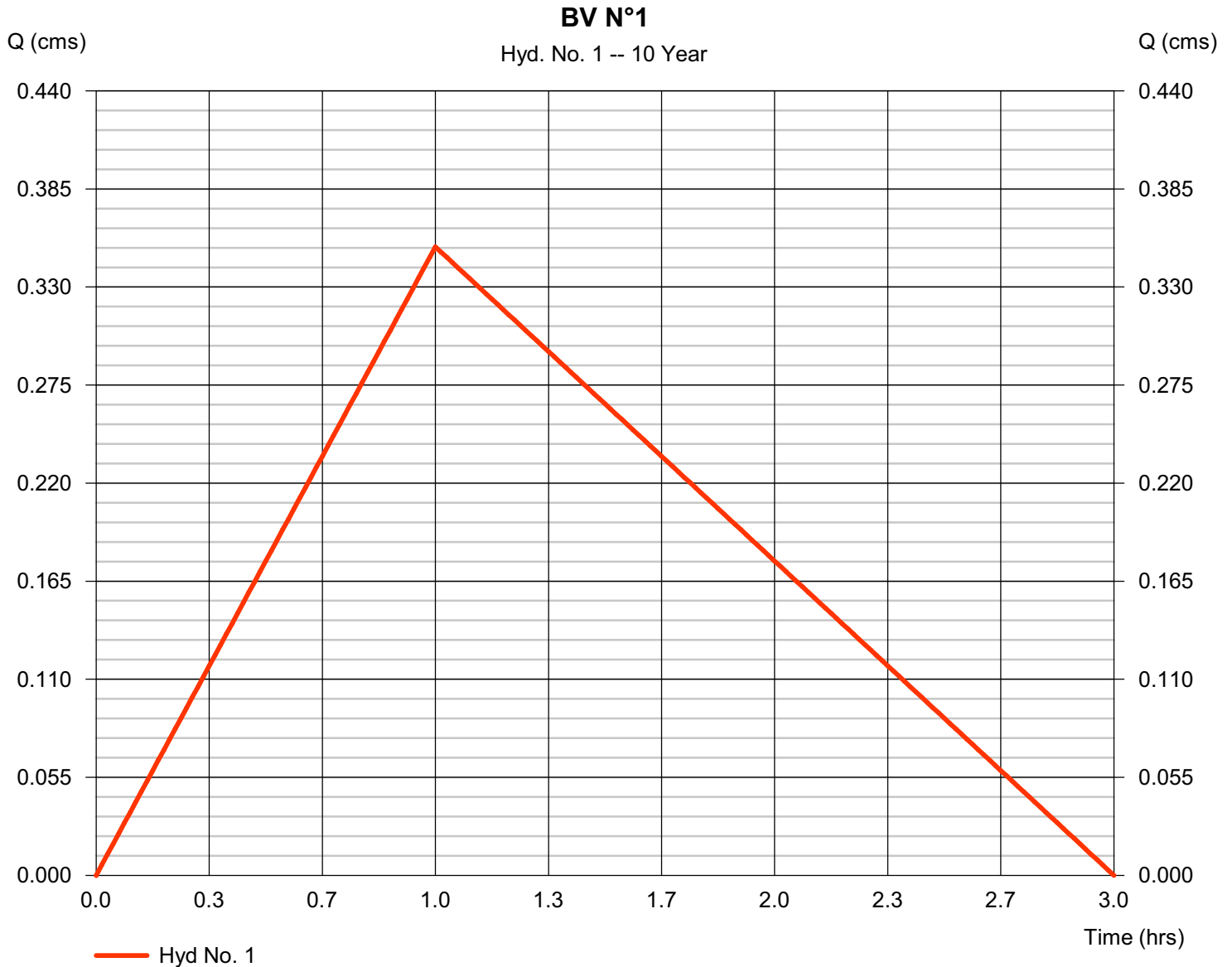
Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2010 by Autodesk, Inc. v9.25

vendredi, févr 5, 2010

## Hyd. No. 1

BV N°1

Hydrograph type	= Rational	Peak discharge	= 0.353 cms
Storm frequency	= 10 yrs	Time to peak	= 1.00 hrs
Time interval	= 1 min	Hyd. volume	= 1 903.9 cum
Drainage area	= 29.300 hectare	Runoff coeff.	= 0.16
Intensity	= 27.300 mm/hr	Tc by User	= 60.00 min
IDF Curve	= IDF_ALSACE.IDF	Asc/Rec limb fact	= 1/2



# Watershed Model Schematic

Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2010 by Autodesk, Inc. v9.25

BV N°2



## **Legend**

<b><u>Hyd.</u></b>	<b><u>Origin</u></b>	<b><u>Description</u></b>
1	Rational	BV N°2

# Hydrograph Report

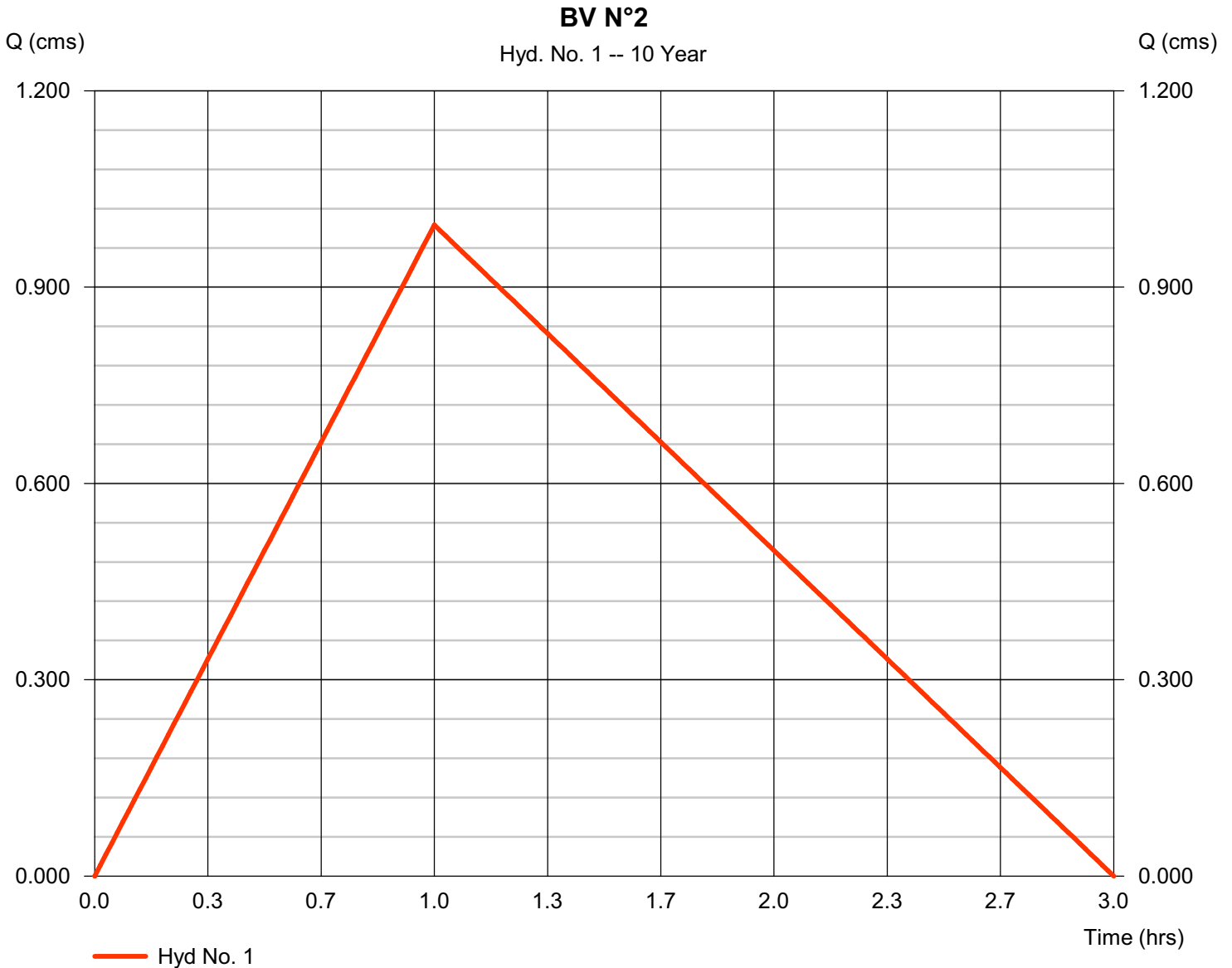
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vendredi, févr 5, 2010

## Hyd. No. 1

BV N°2

Hydrograph type	= Rational	Peak discharge	= 0.995 cms
Storm frequency	= 10 yrs	Time to peak	= 1.00 hrs
Time interval	= 1 min	Hyd. volume	= 5 372.9 cum
Drainage area	= 94.500 hectare	Runoff coeff.	= 0.14
Intensity	= 27.300 mm/hr	Tc by User	= 60.00 min
IDF Curve	= IDF_ALSACE.IDF	Asc/Rec limb fact	= 1/2



# Watershed Model Schematic

Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2010 by Autodesk, Inc. v9.25

BV N°3



## Legend

<u>Hyd.</u>	<u>Origin</u>	<u>Description</u>
1	Rational	BV N°3

# Hydrograph Report

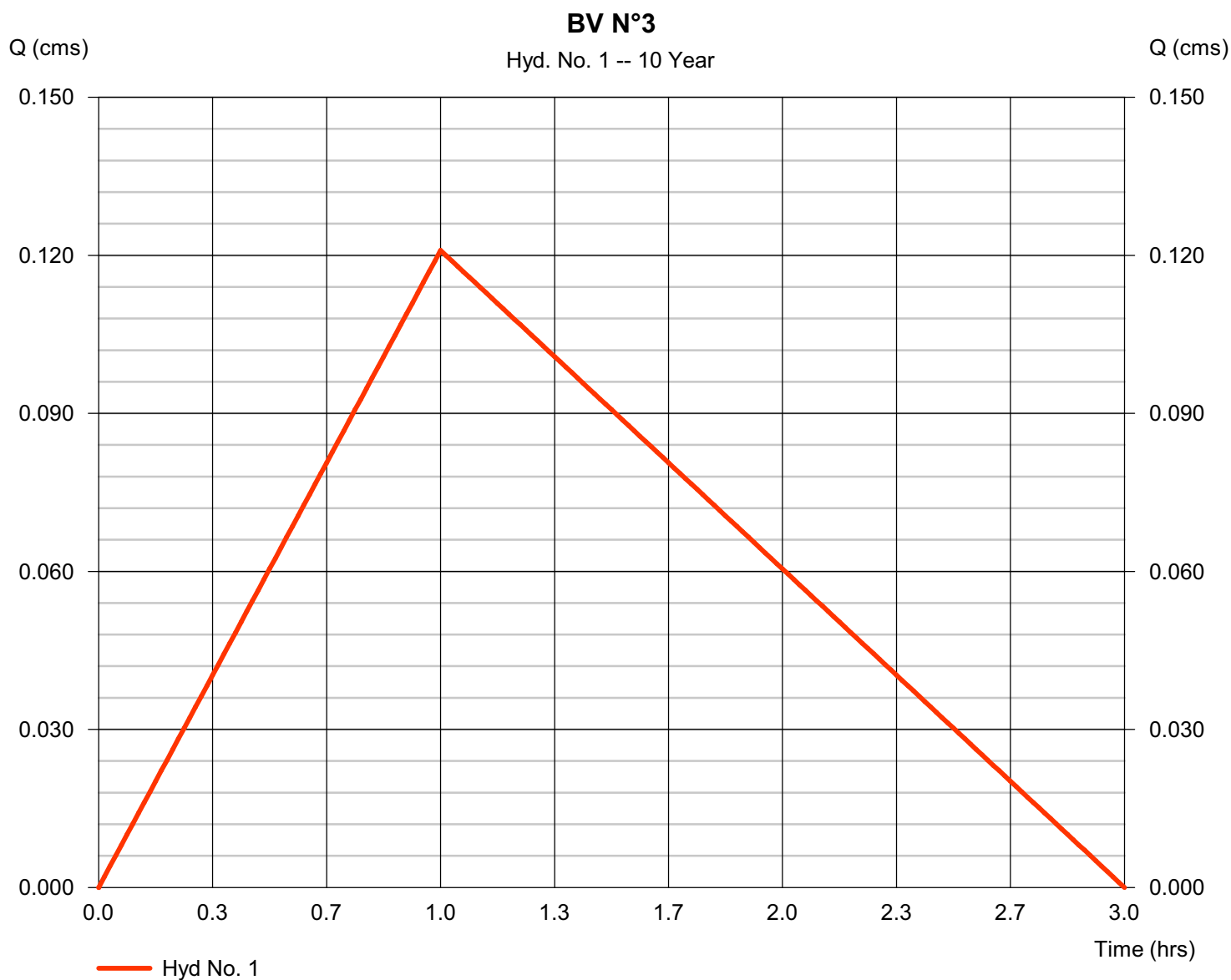
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vendredi, févr 5, 2010

## Hyd. No. 1

BV N°3

Hydrograph type	= Rational	Peak discharge	= 0.121 cms
Storm frequency	= 10 yrs	Time to peak	= 1.00 hrs
Time interval	= 1 min	Hyd. volume	= 653.0 cum
Drainage area	= 13.400 hectare	Runoff coeff.	= 0.12
Intensity	= 27.300 mm/hr	Tc by User	= 60.00 min
IDF Curve	= IDF_ALSACE.IDF	Asc/Rec limb fact	= 1/2



# Watershed Model Schematic

Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2010 by Autodesk, Inc. v9.25

BV N°4



## **Legend**

<b><u>Hyd.</u></b>	<b><u>Origin</u></b>	<b><u>Description</u></b>
1	Rational	BV N°4

# Hydrograph Report

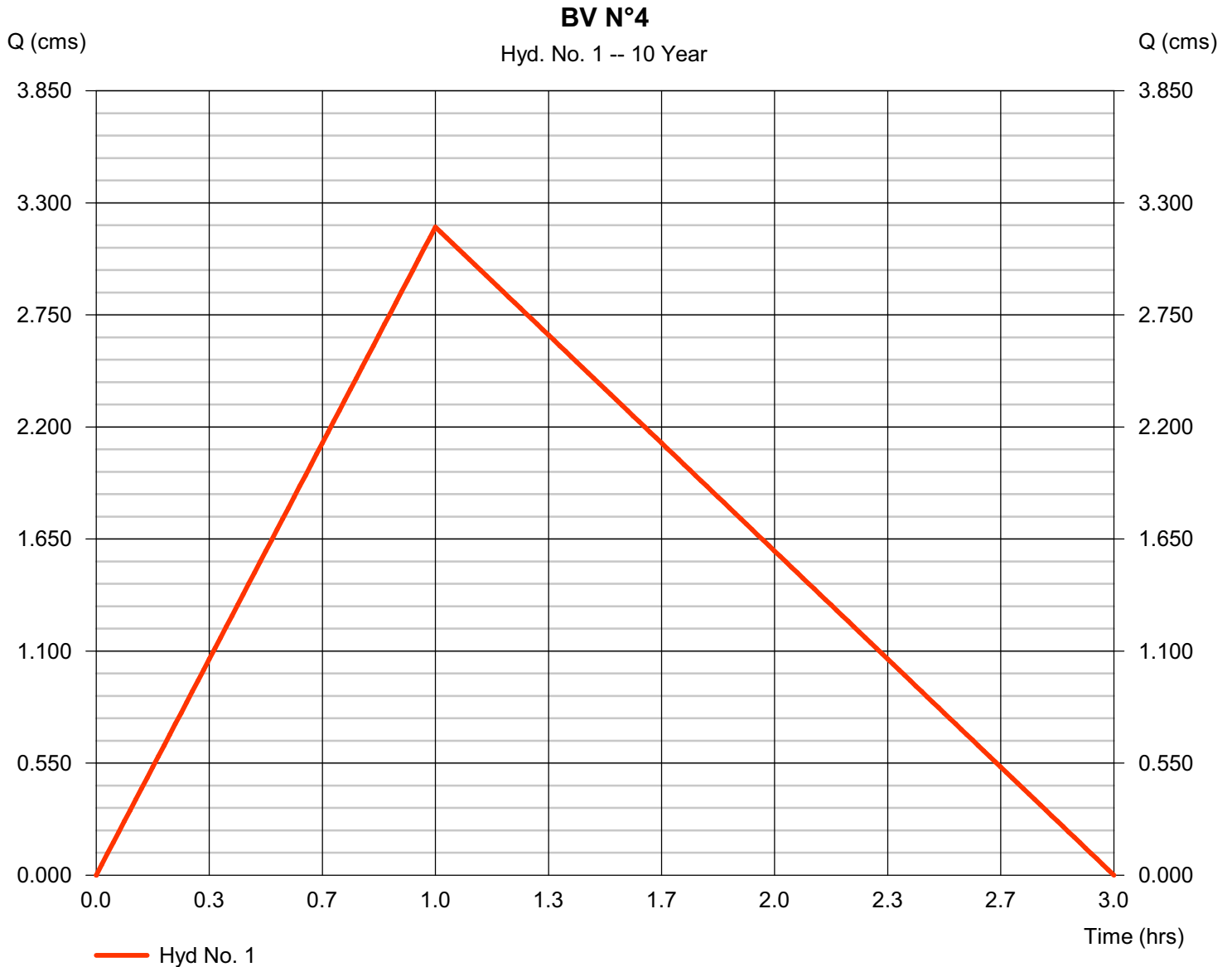
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vendredi, févr 5, 2010

## Hyd. No. 1

BV N°4

Hydrograph type	= Rational	Peak discharge	= 3.181 cms
Storm frequency	= 10 yrs	Time to peak	= 1.00 hrs
Time interval	= 1 min	Hyd. volume	= 17 178.8 cum
Drainage area	= 282.000 hectare	Runoff coeff.	= 0.15
Intensity	= 27.300 mm/hr	Tc by User	= 60.00 min
IDF Curve	= IDF_ALSACE.IDF	Asc/Rec limb fact	= 1/2





# Watershed Model Schematic

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BV N°5



## **Legend**

<b><u>Hyd.</u></b>	<b><u>Origin</u></b>	<b><u>Description</u></b>
1	Rational	BV N°5

# Hydrograph Report

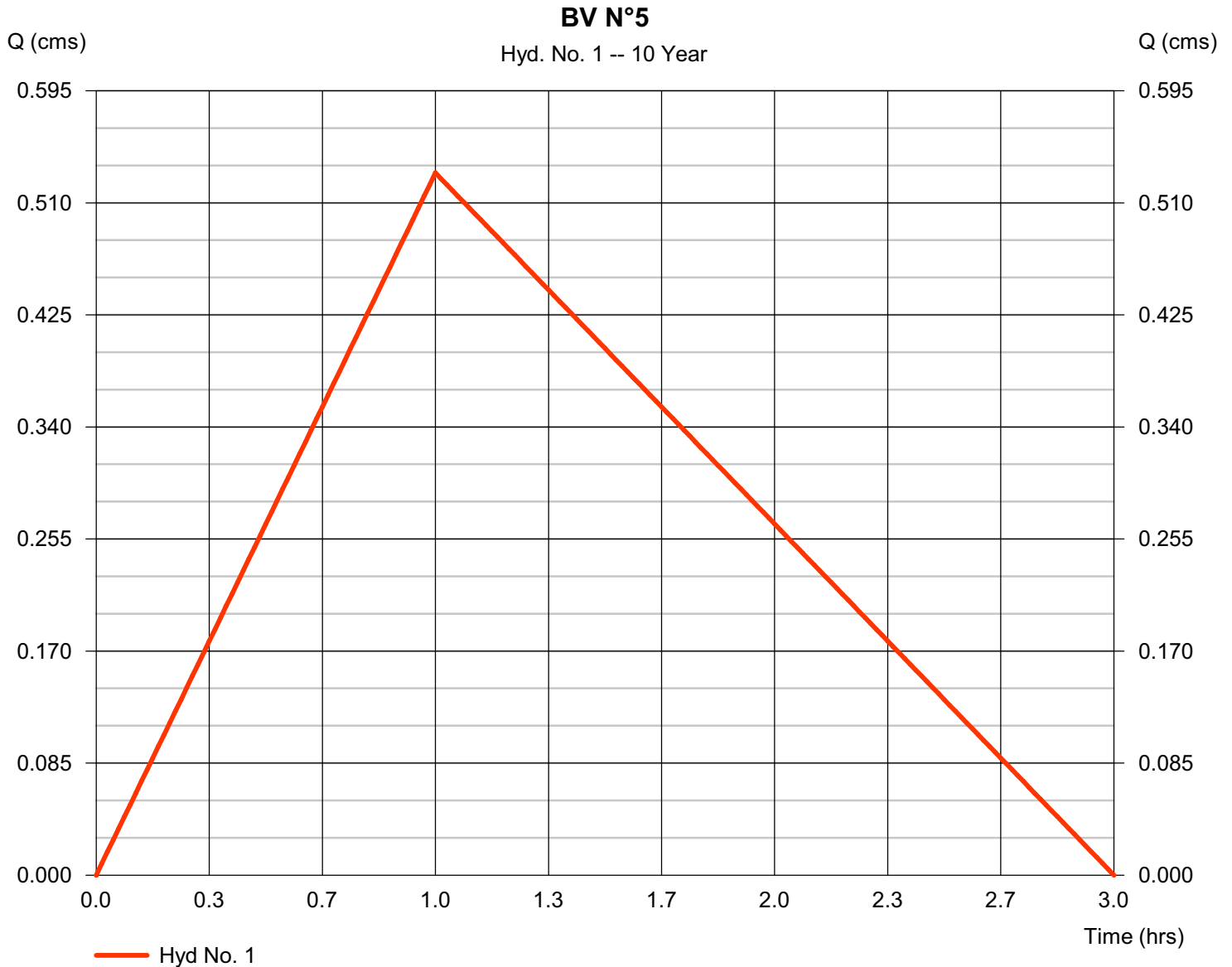
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vendredi, févr 5, 2010

## Hyd. No. 1

BV N°5

Hydrograph type	= Rational	Peak discharge	= 0.533 cms
Storm frequency	= 10 yrs	Time to peak	= 1.00 hrs
Time interval	= 1 min	Hyd. volume	= 2 876.9 cum
Drainage area	= 50.600 hectare	Runoff coeff.	= 0.14
Intensity	= 27.300 mm/hr	Tc by User	= 60.00 min
IDF Curve	= IDF_ALSACE.IDF	Asc/Rec limb fact	= 1/2



# Watershed Model Schematic

Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2010 by Autodesk, Inc. v9.25

BV N°15



## Legend

<u>Hyd.</u>	<u>Origin</u>	<u>Description</u>
1	Rational	BV N°15

# Hydrograph Report

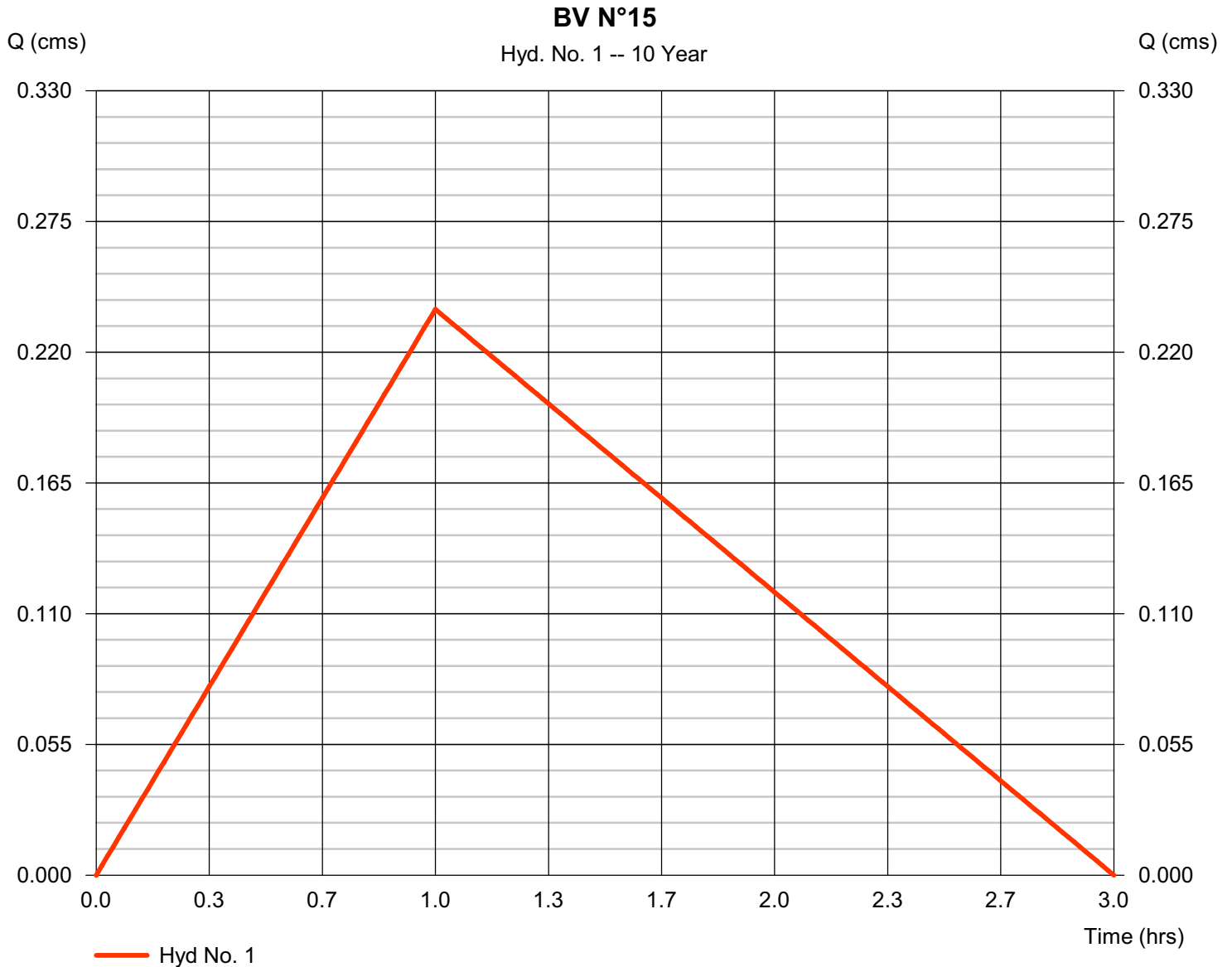
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vendredi, févr 5, 2010

## Hyd. No. 1

BV N°15

Hydrograph type	= Rational	Peak discharge	= 0.238 cms
Storm frequency	= 10 yrs	Time to peak	= 1.00 hrs
Time interval	= 1 min	Hyd. volume	= 1 285.4 cum
Drainage area	= 21.100 hectare	Runoff coeff.	= 0.15
Intensity	= 27.300 mm/hr	Tc by User	= 60.00 min
IDF Curve	= IDF_ALSACE.IDF	Asc/Rec limb fact	= 1/2



# Watershed Model Schematic

Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2010 by Autodesk, Inc. v9.25

BV N°18



## **Legend**

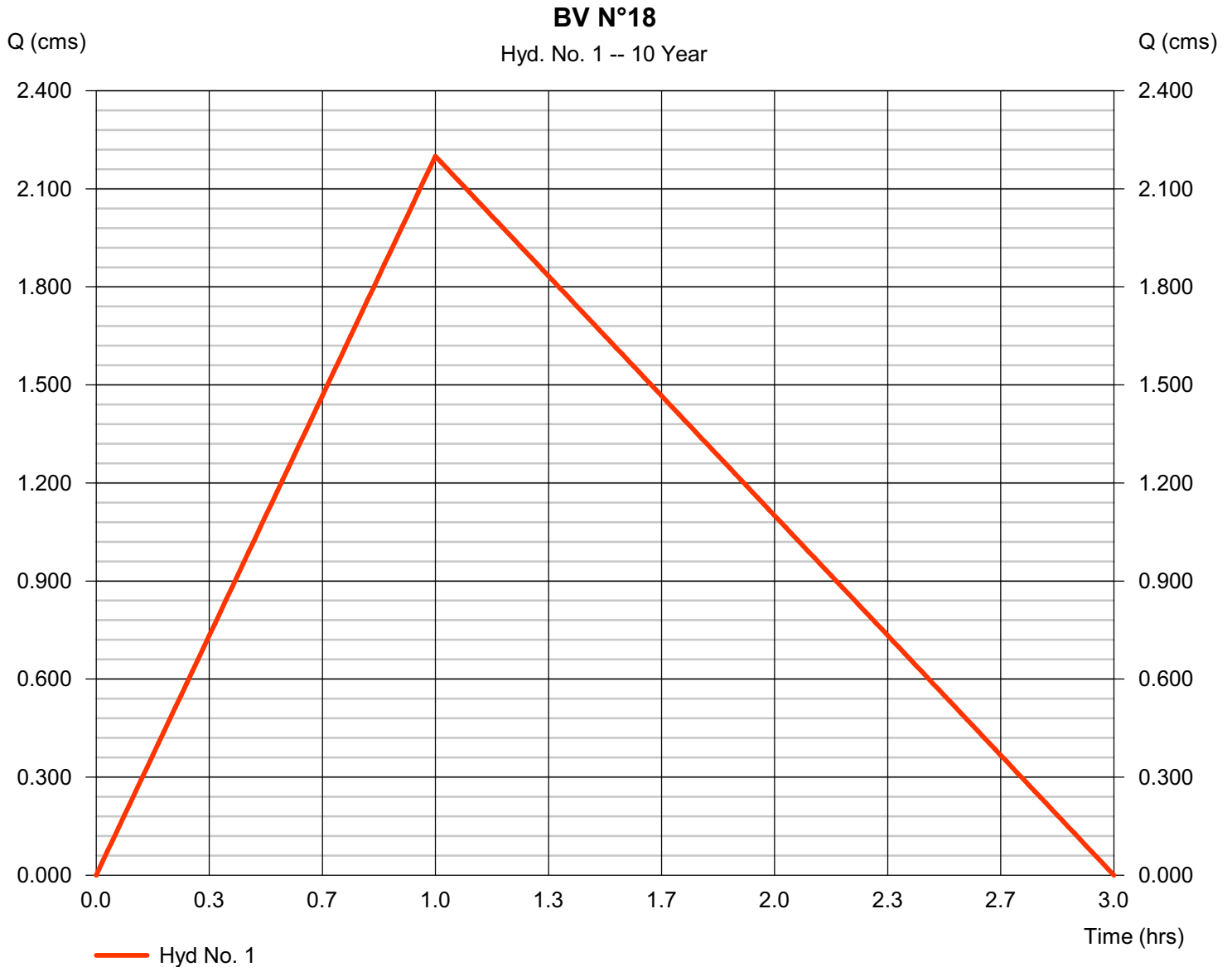
<b><u>Hyd.</u></b>	<b><u>Origin</u></b>	<b><u>Description</u></b>
1	Rational	BV N°18

# Hydrograph Report

## Hyd. No. 1

BV N°18

Hydrograph type	= Rational	Peak discharge	= 2.200 cms
Storm frequency	= 10 yrs	Time to peak	= 1.00 hrs
Time interval	= 1 min	Hyd. volume	= 11 879.0 cum
Drainage area	= 195.000 hectare	Runoff coeff.	= 0.15
Intensity	= 27.300 mm/hr	Tc by User	= 60.00 min
IDF Curve	= IDF_ALSACE.IDF	Asc/Rec limb fact	= 1/2



# Watershed Model Schematic

Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2010 by Autodesk, Inc. v9.25

BV N°27



## **Legend**

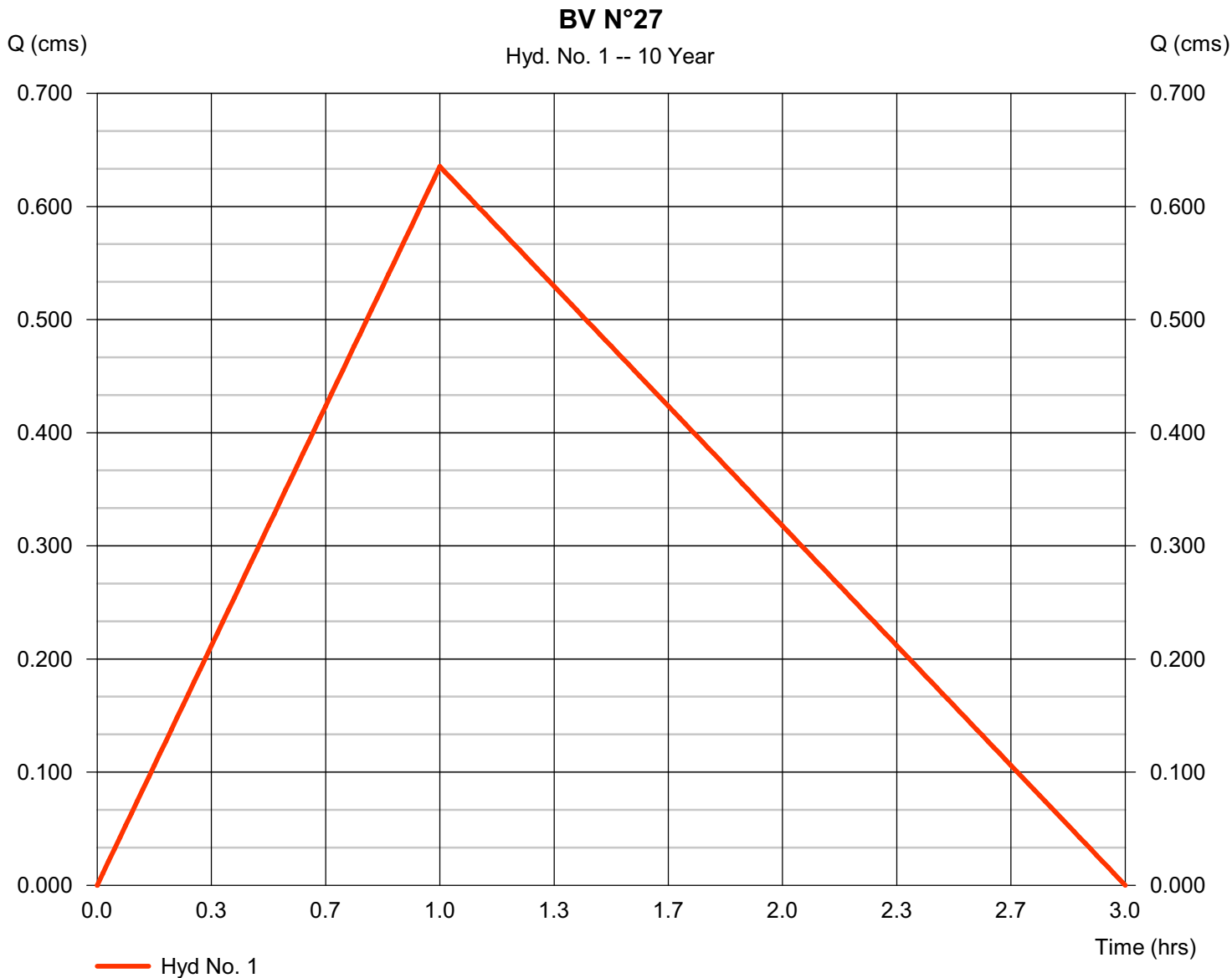
<b><u>Hyd.</u></b>	<b><u>Origin</u></b>	<b><u>Description</u></b>
1	Rational	BV N°27

# Hydrograph Report

## Hyd. No. 1

BV N°27

Hydrograph type	= Rational	Peak discharge	= 0.635 cms
Storm frequency	= 10 yrs	Time to peak	= 1.00 hrs
Time interval	= 1 min	Hyd. volume	= 3 430.9 cum
Drainage area	= 52.800 hectare	Runoff coeff.	= 0.16
Intensity	= 27.300 mm/hr	Tc by User	= 60.00 min
IDF Curve	= IDF_ALSACE.IDF	Asc/Rec limb fact	= 1/2





# Watershed Model Schematic

Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2010 by Autodesk, Inc. v9.25

BV N°28



## Legend

<u>Hyd.</u>	<u>Origin</u>	<u>Description</u>
1	Rational	BV N°28

# Hydrograph Report

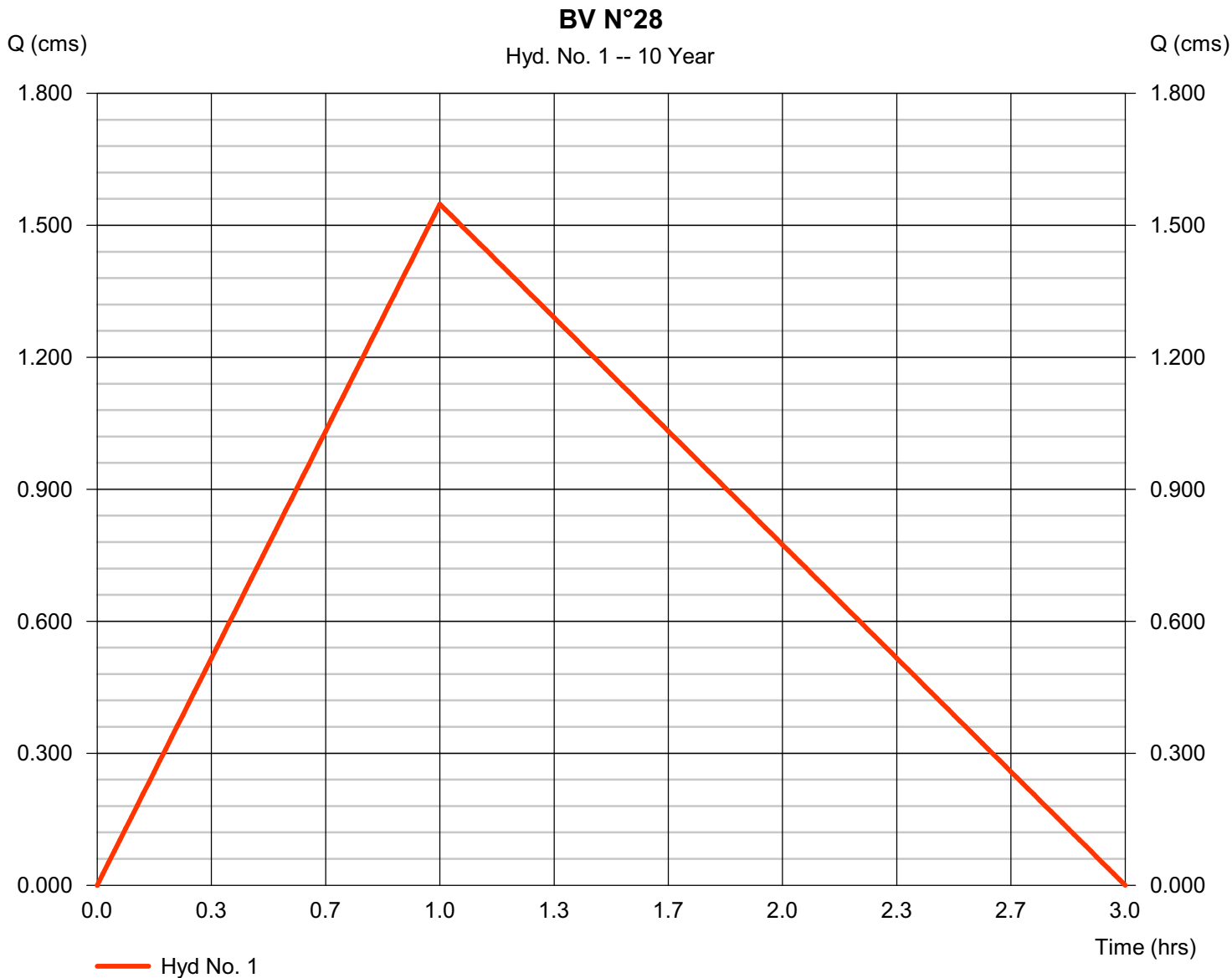
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vendredi, févr 5, 2010

## Hyd. No. 1

BV N°28

Hydrograph type	= Rational	Peak discharge	= 1.548 cms
Storm frequency	= 10 yrs	Time to peak	= 1.00 hrs
Time interval	= 1 min	Hyd. volume	= 8 360.8 cum
Drainage area	= 121.100 hectare	Runoff coeff.	= 0.17
Intensity	= 27.300 mm/hr	Tc by User	= 60.00 min
IDF Curve	= IDF_ALSACE.IDF	Asc/Rec limb fact	= 1/2



# Watershed Model Schematic

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BV N°29



## **Legend**

<b><u>Hyd.</u></b>	<b><u>Origin</u></b>	<b><u>Description</u></b>
1	Rational	BV N°29

# Hydrograph Report

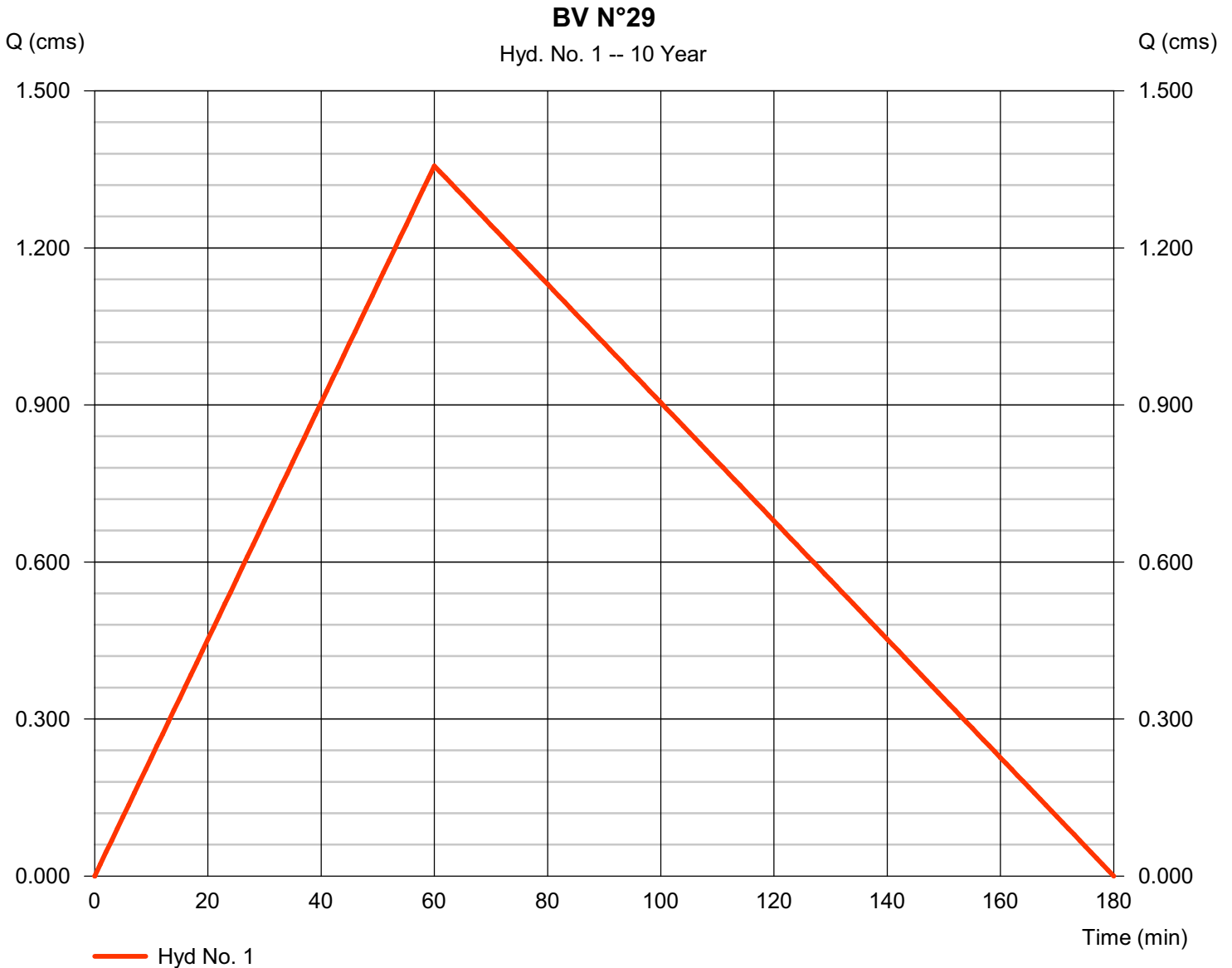
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vendredi, févr 5, 2010

## Hyd. No. 1

BV N°29

Hydrograph type	= Rational	Peak discharge	= 1.357 cms
Storm frequency	= 10 yrs	Time to peak	= 60 min
Time interval	= 1 min	Hyd. volume	= 7 326.4 cum
Drainage area	= 225.500 hectare	Runoff coeff.	= 0.08
Intensity	= 27.300 mm/hr	Tc by User	= 60.00 min
IDF Curve	= IDF_ALSACE.IDF	Asc/Rec limb fact	= 1/2



# Watershed Model Schematic

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BV N°30



## **Legend**

<b><u>Hyd.</u></b>	<b><u>Origin</u></b>	<b><u>Description</u></b>
1	Rational	BV N°30

# Hydrograph Report

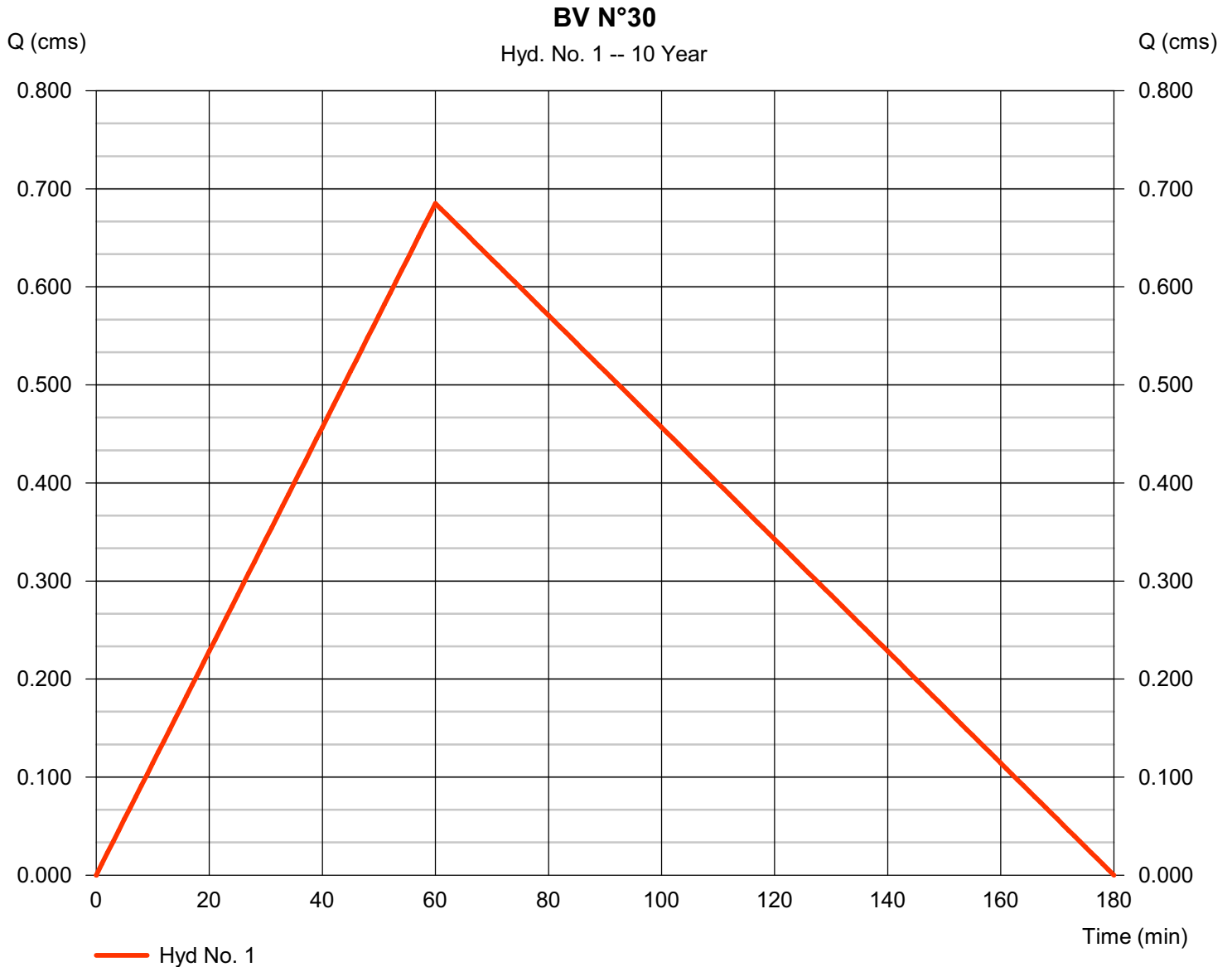
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vendredi, févr 5, 2010

## Hyd. No. 1

BV N°30

Hydrograph type	= Rational	Peak discharge	= 0.685 cms
Storm frequency	= 10 yrs	Time to peak	= 60 min
Time interval	= 1 min	Hyd. volume	= 3 699.7 cum
Drainage area	= 182.200 hectare	Runoff coeff.	= 0.05
Intensity	= 27.300 mm/hr	Tc by User	= 60.00 min
IDF Curve	= IDF_ALSACE.IDF	Asc/Rec limb fact	= 1/2



# Watershed Model Schematic

Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2010 by Autodesk, Inc. v9.25

BV N°31



## **Legend**

<b><u>Hyd.</u></b>	<b><u>Origin</u></b>	<b><u>Description</u></b>
1	Rational	BV N°31

# Hydrograph Report

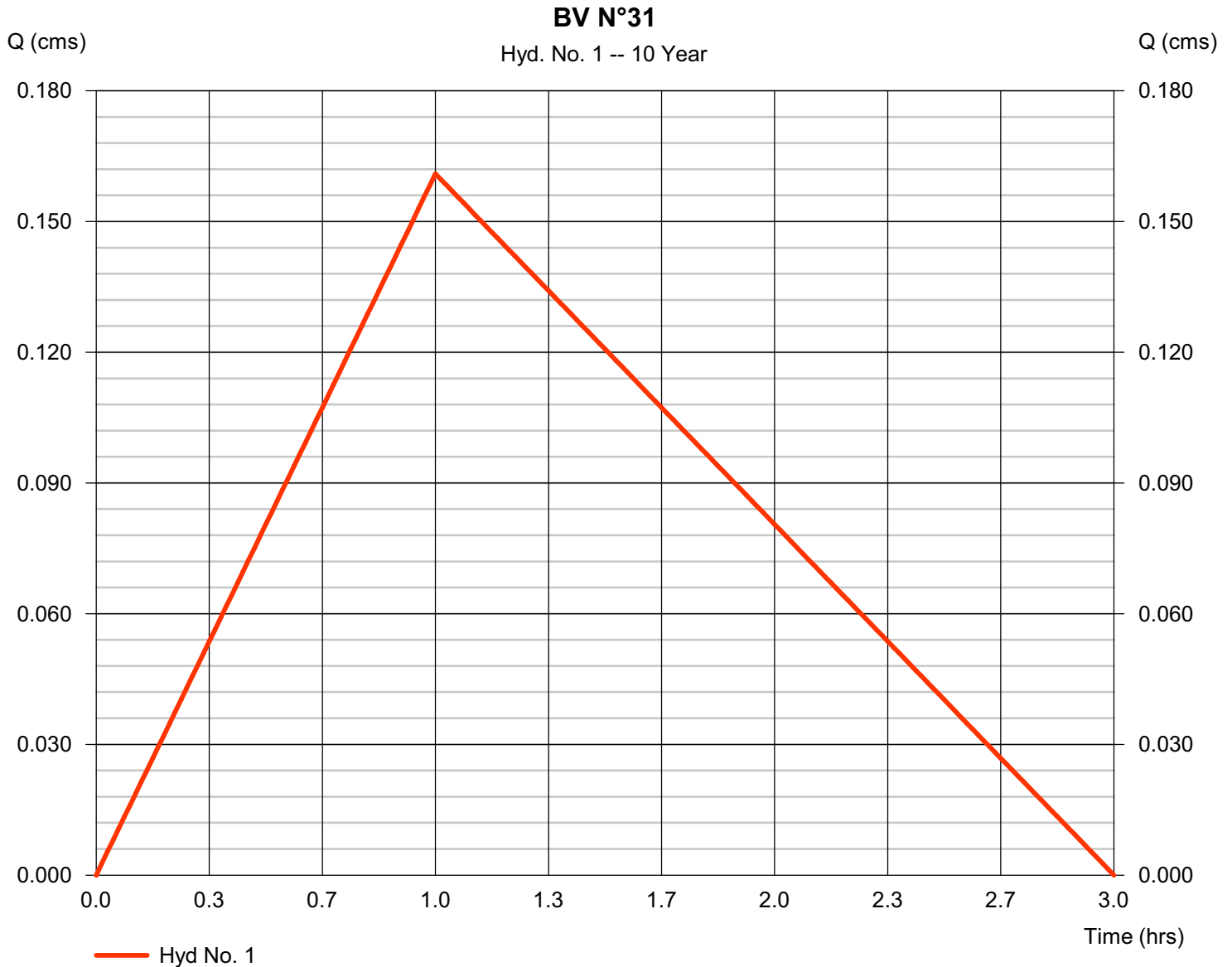
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vendredi, févr 5, 2010

## Hyd. No. 1

BV N°31

Hydrograph type	= Rational	Peak discharge	= 0.161 cms
Storm frequency	= 10 yrs	Time to peak	= 1.00 hrs
Time interval	= 1 min	Hyd. volume	= 869.1 cum
Drainage area	= 107.000 hectare	Runoff coeff.	= 0.02
Intensity	= 27.300 mm/hr	Tc by User	= 60.00 min
IDF Curve	= IDF_ALSACE.IDF	Asc/Rec limb fact	= 1/2





# Watershed Model Schematic

Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2010 by Autodesk, Inc. v9.25

BV N°34



## **Legend**

<b><u>Hyd.</u></b>	<b><u>Origin</u></b>	<b><u>Description</u></b>
1	Rational	BV N°34

# Hydrograph Report

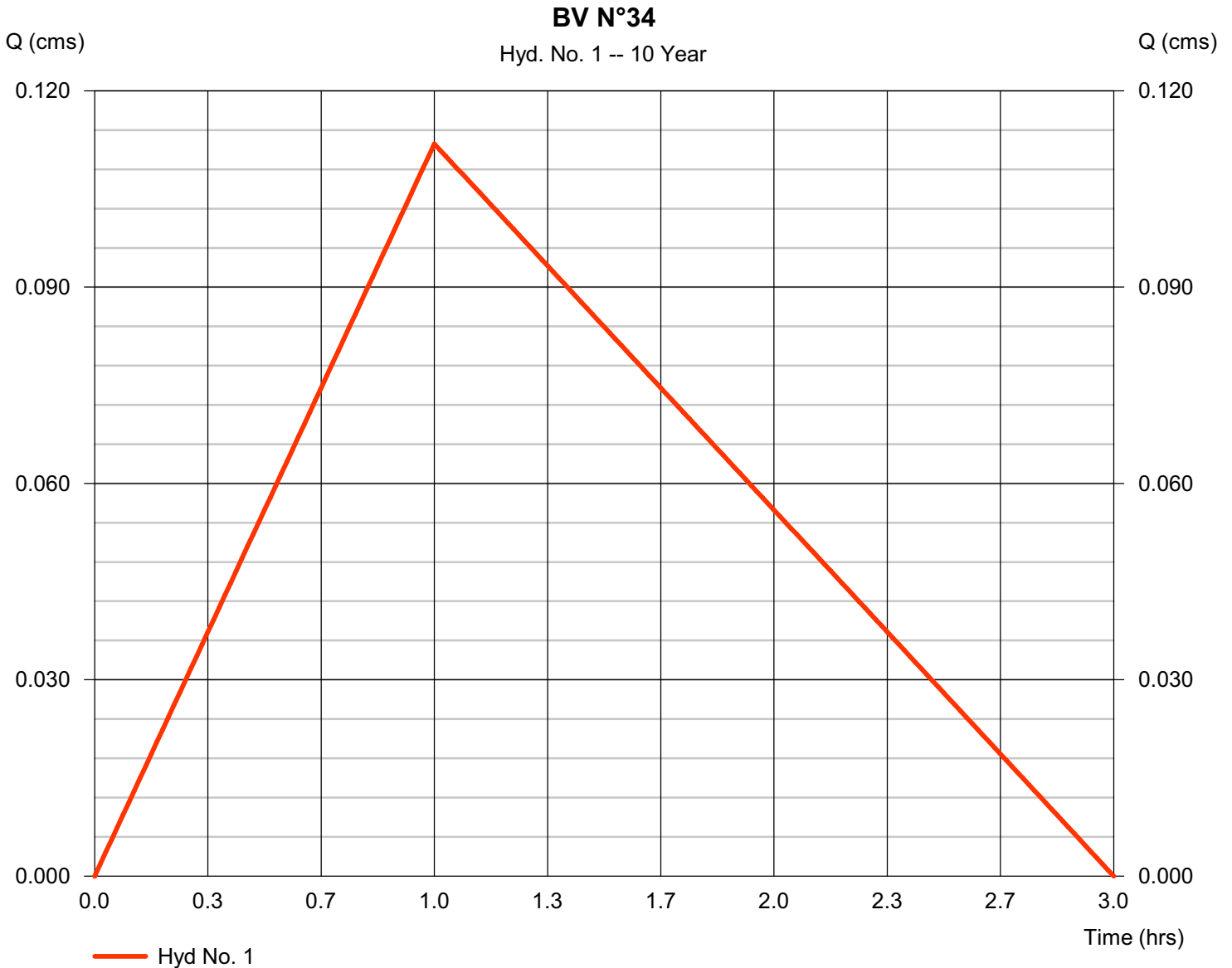
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vendredi, févr 5, 2010

## Hyd. No. 1

BV N°34

Hydrograph type	= Rational	Peak discharge	= 0.112 cms
Storm frequency	= 10 yrs	Time to peak	= 1.00 hrs
Time interval	= 1 min	Hyd. volume	= 604.3 cum
Drainage area	= 37.200 hectare	Runoff coeff.	= 0.04
Intensity	= 27.300 mm/hr	Tc by User	= 60.00 min
IDF Curve	= IDF_ALSACE.IDF	Asc/Rec limb fact	= 1/2



# Watershed Model Schematic

Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2010 by Autodesk, Inc. v9.25

BV N°35



## Legend

<u>Hyd.</u>	<u>Origin</u>	<u>Description</u>
1	Rational	BV N°35

# Hydrograph Report

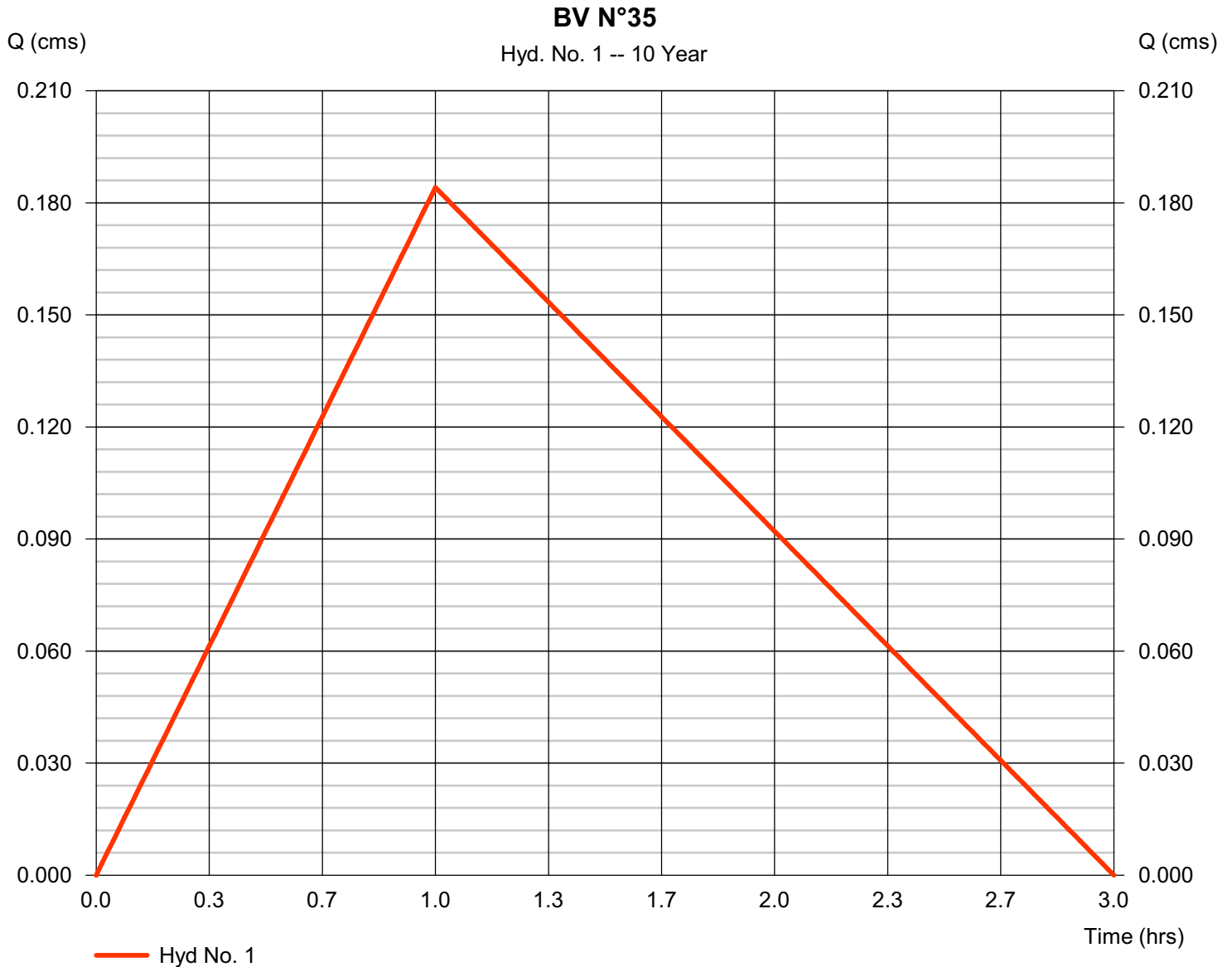
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vendredi, févr 5, 2010

## Hyd. No. 1

BV N°35

Hydrograph type	= Rational	Peak discharge	= 0.184 cms
Storm frequency	= 10 yrs	Time to peak	= 1.00 hrs
Time interval	= 1 min	Hyd. volume	= 994.2 cum
Drainage area	= 20.400 hectare	Runoff coeff.	= 0.12
Intensity	= 27.300 mm/hr	Tc by User	= 60.00 min
IDF Curve	= IDF_ALSACE.IDF	Asc/Rec limb fact	= 1/2



# Watershed Model Schematic

Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2010 by Autodesk, Inc. v9.25

BV N°36



## **Legend**

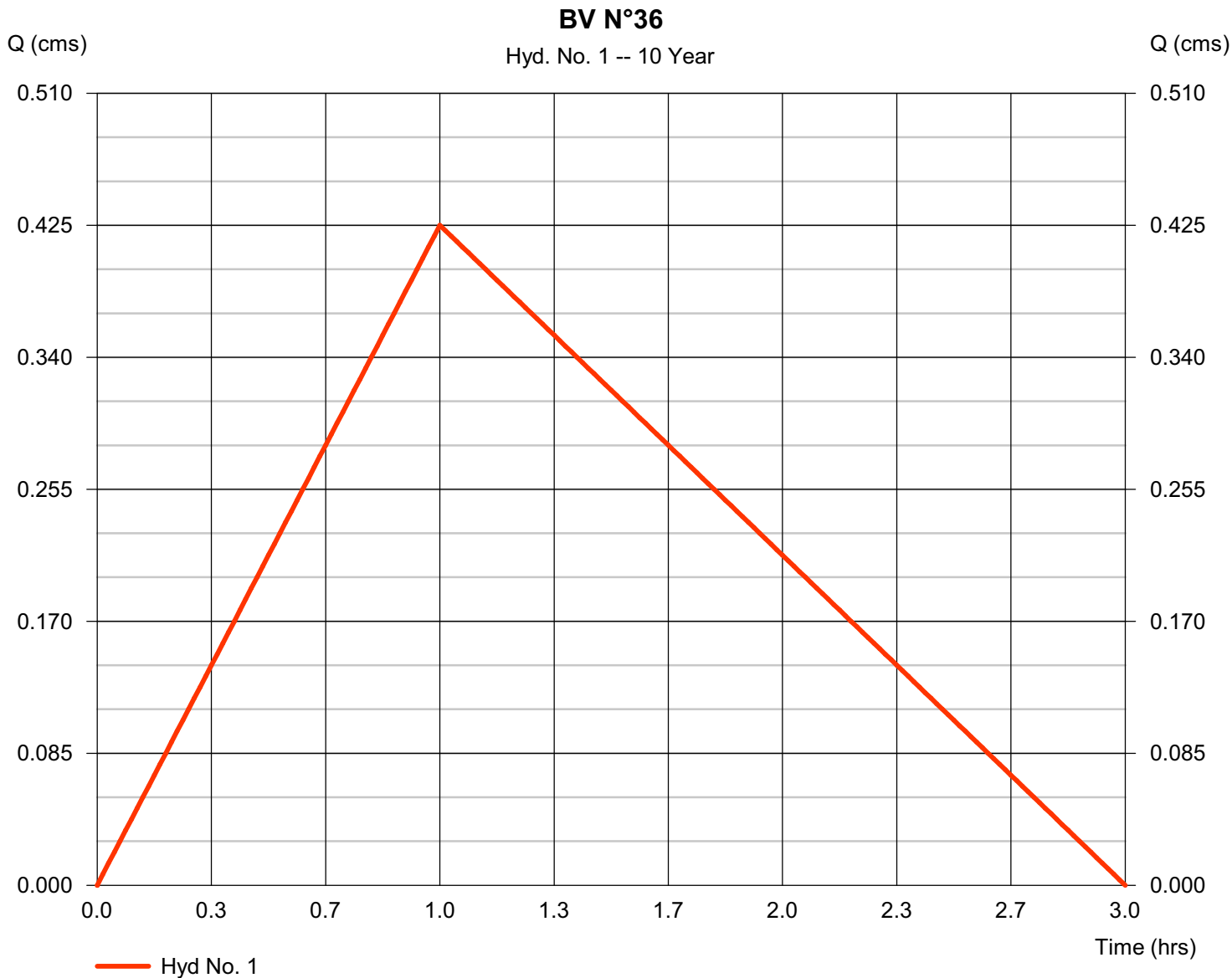
<b><u>Hyd.</u></b>	<b><u>Origin</u></b>	<b><u>Description</u></b>
1	Rational	BV N°36

# Hydrograph Report

## Hyd. No. 1

BV N°36

Hydrograph type	= Rational	Peak discharge	= 0.425 cms
Storm frequency	= 10 yrs	Time to peak	= 1.00 hrs
Time interval	= 1 min	Hyd. volume	= 2 295.4 cum
Drainage area	= 62.800 hectare	Runoff coeff.	= 0.09
Intensity	= 27.300 mm/hr	Tc by User	= 60.00 min
IDF Curve	= IDF_ALSACE.IDF	Asc/Rec limb fact	= 1/2



# Watershed Model Schematic

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BV N°37



## Legend

<u>Hyd.</u>	<u>Origin</u>	<u>Description</u>
1	Rational	BV N°37

# Hydrograph Report

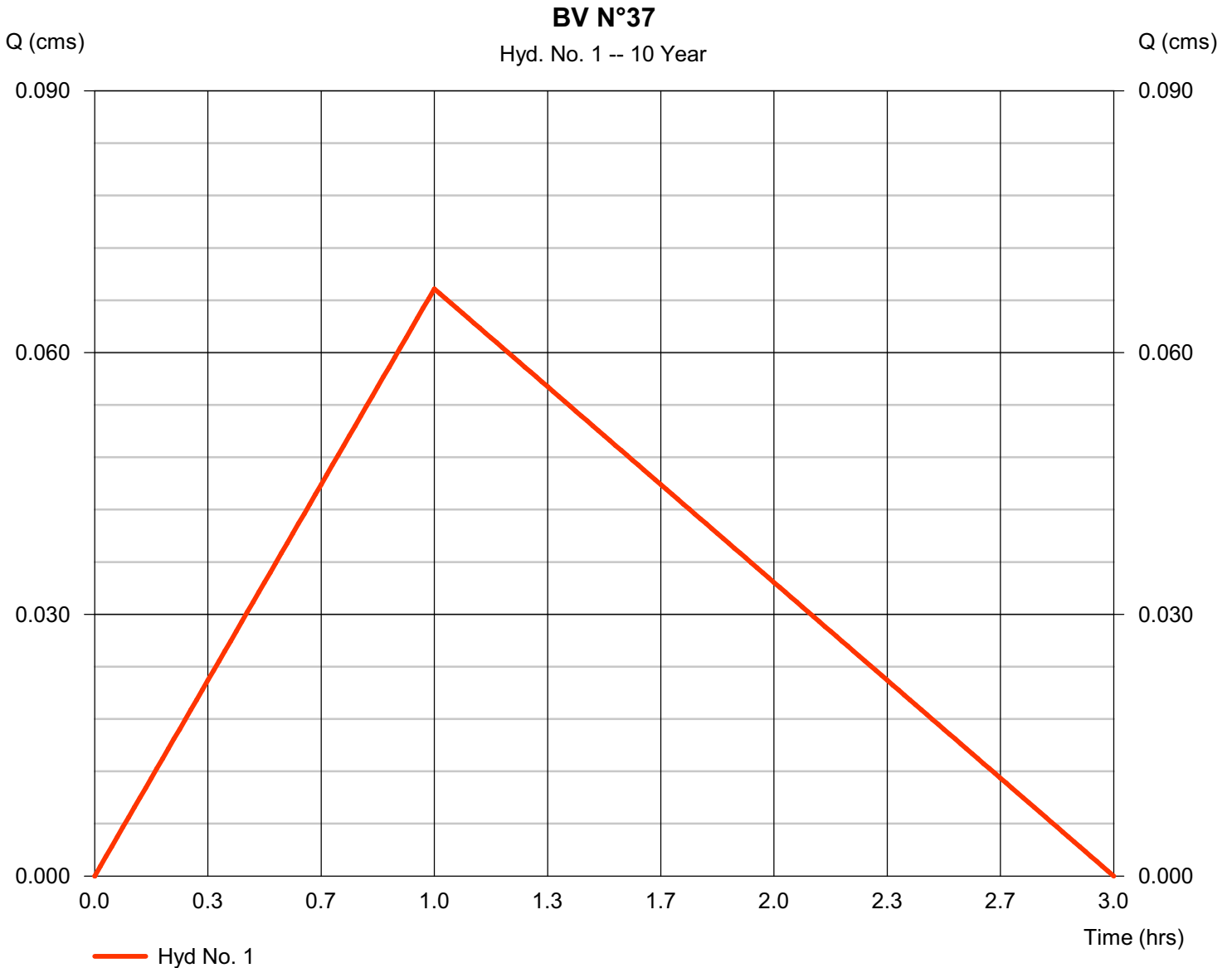
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vendredi, févr 5, 2010

## Hyd. No. 1

BV N°37

Hydrograph type	= Rational	Peak discharge	= 0.067 cms
Storm frequency	= 10 yrs	Time to peak	= 1.00 hrs
Time interval	= 1 min	Hyd. volume	= 363.5 cum
Drainage area	= 17.900 hectare	Runoff coeff.	= 0.05
Intensity	= 27.300 mm/hr	Tc by User	= 60.00 min
IDF Curve	= IDF_ALSACE.IDF	Asc/Rec limb fact	= 1/2





# Watershed Model Schematic

Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2010 by Autodesk, Inc. v9.25

BV N°38



## **Legend**

<b><u>Hyd.</u></b>	<b><u>Origin</u></b>	<b><u>Description</u></b>
1	Rational	BV N°38

# Hydrograph Report

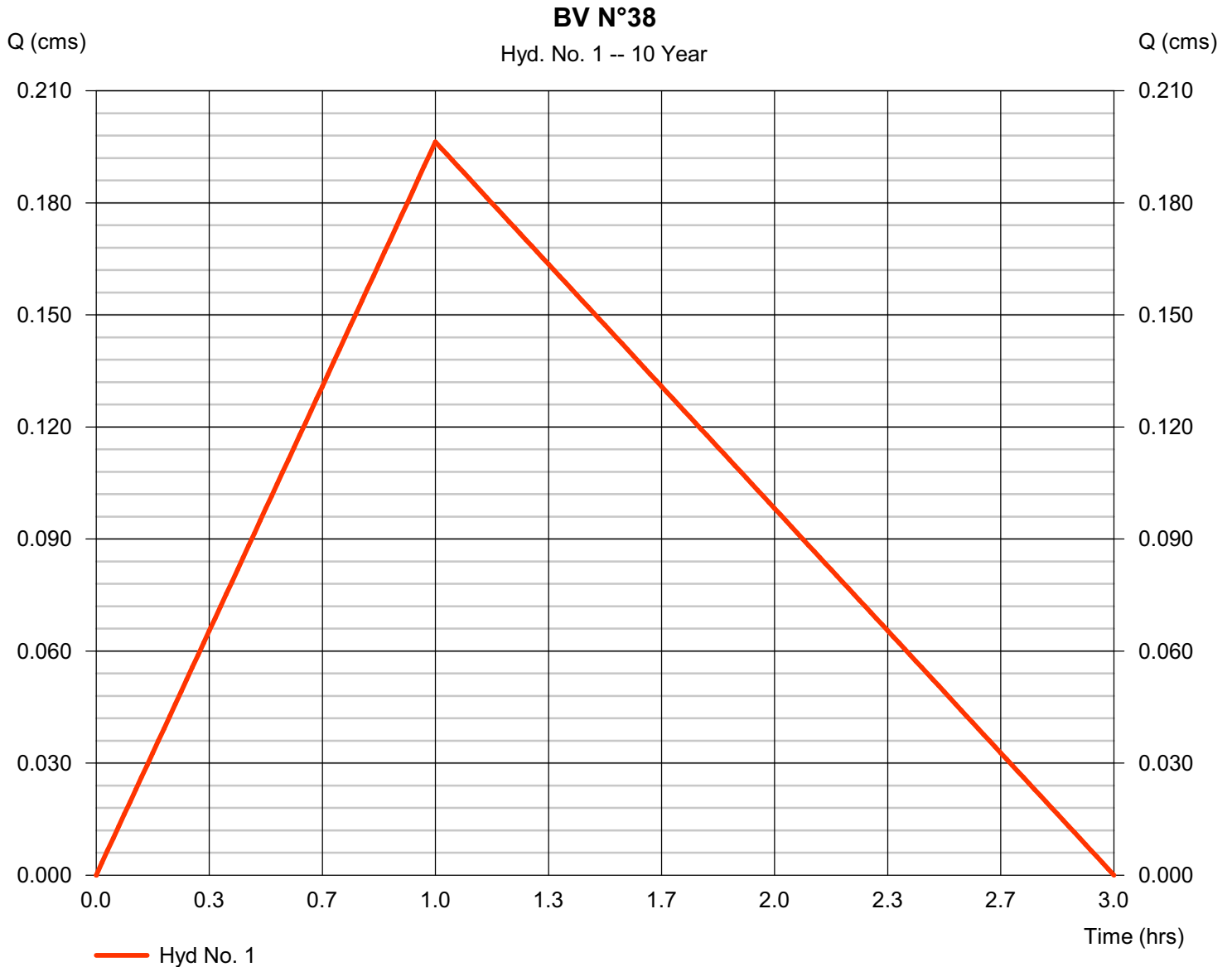
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vendredi, févr 5, 2010

## Hyd. No. 1

BV N°38

Hydrograph type	= Rational	Peak discharge	= 0.196 cms
Storm frequency	= 10 yrs	Time to peak	= 1.00 hrs
Time interval	= 1 min	Hyd. volume	= 1 060.0 cum
Drainage area	= 17.400 hectare	Runoff coeff.	= 0.15
Intensity	= 27.300 mm/hr	Tc by User	= 60.00 min
IDF Curve	= IDF_ALSACE.IDF	Asc/Rec limb fact	= 1/2



# Watershed Model Schematic

Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2010 by Autodesk, Inc. v9.25

BV N°39



## **Legend**

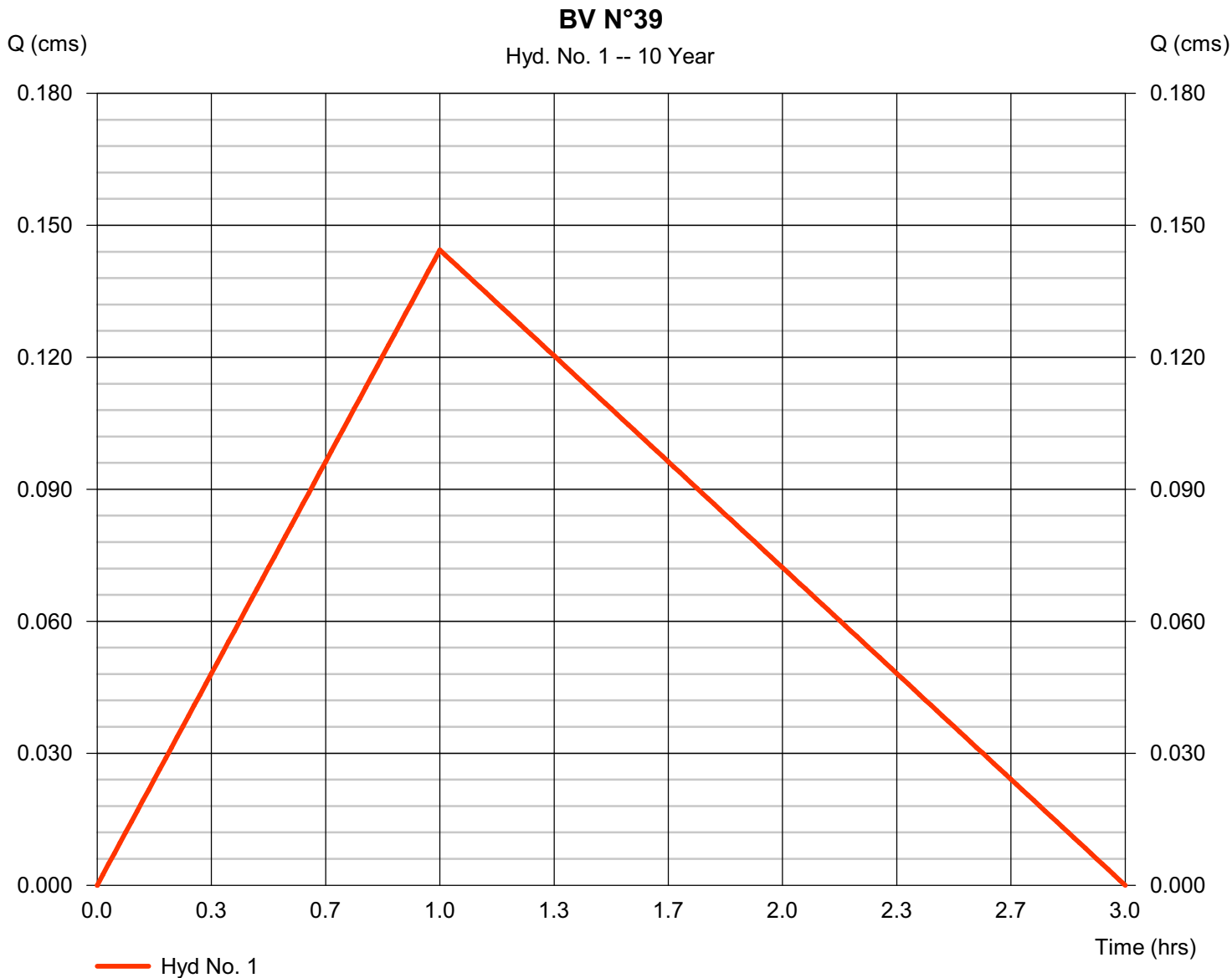
<b><u>Hyd.</u></b>	<b><u>Origin</u></b>	<b><u>Description</u></b>
1	Rational	BV N°39

# Hydrograph Report

## Hyd. No. 1

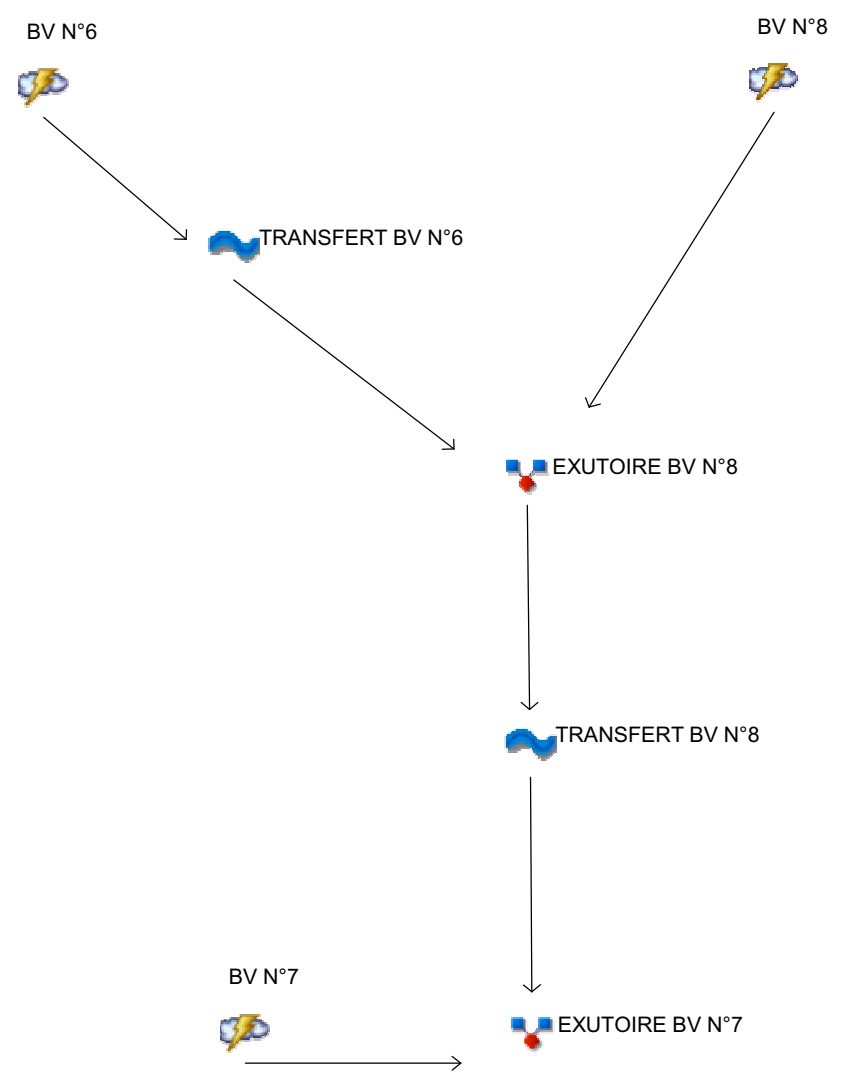
BV N°39

Hydrograph type	= Rational	Peak discharge	= 0.144 cms
Storm frequency	= 10 yrs	Time to peak	= 1.00 hrs
Time interval	= 1 min	Hyd. volume	= 779.7 cum
Drainage area	= 12.800 hectare	Runoff coeff.	= 0.15
Intensity	= 27.300 mm/hr	Tc by User	= 60.00 min
IDF Curve	= IDF_ALSACE.IDF	Asc/Rec limb fact	= 1/2



# Watershed Model Schematic

Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2010 by Autodesk, Inc. v9.25



## Legend

Hyd. Origin	Description
1 Rational	BV N°6
2 Rational	BV N°7
3 Reach	TRANSFERT BV N°6
4 Rational	BV N°8
5 Combine	EXUTOIRE BV N°8
6 Reach	TRANSFERT BV N°8
7 Combine	EXUTOIRE BV N°7

# Hydrograph Report

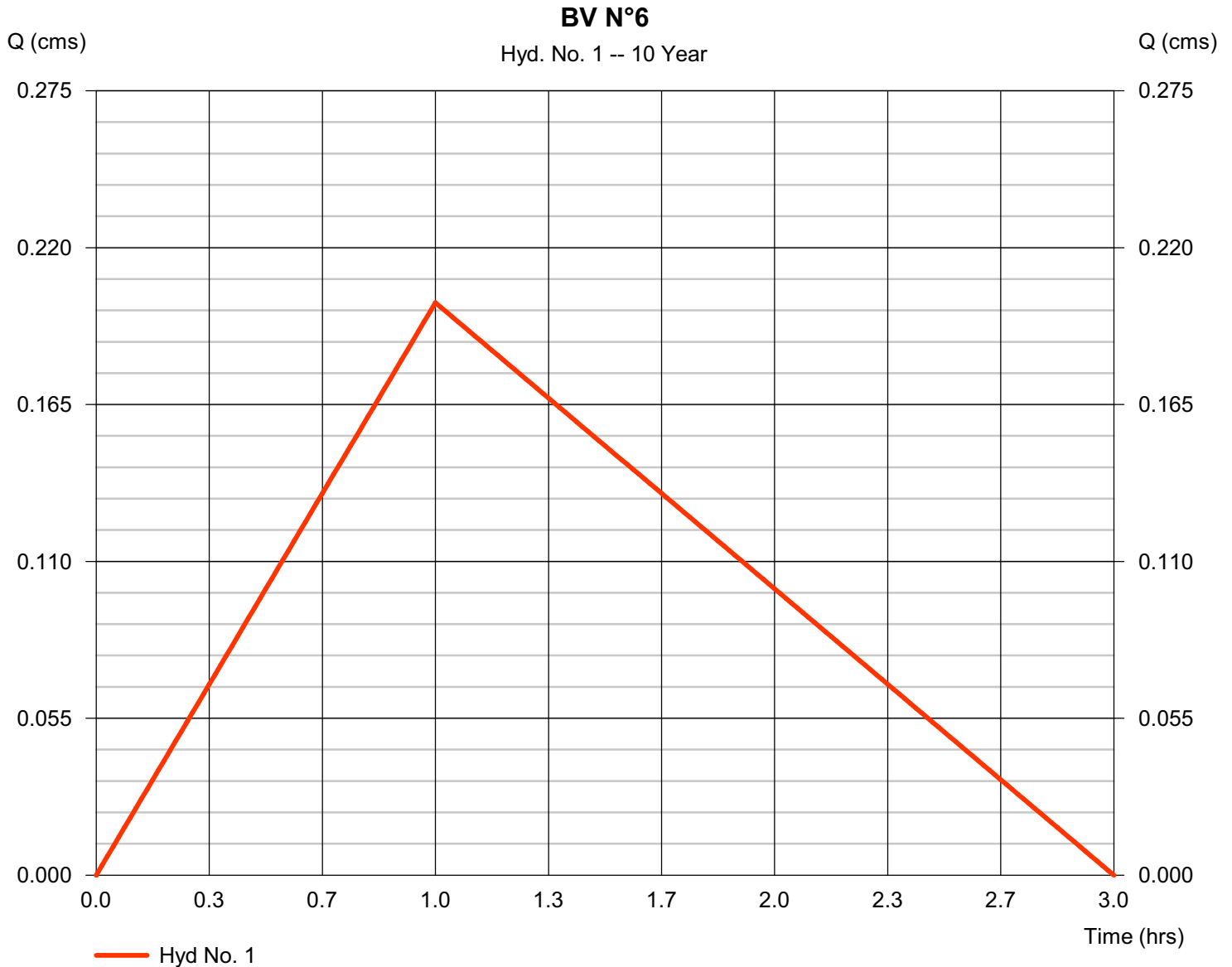
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vendredi, févr 5, 2010

## Hyd. No. 1

BV N°6

Hydrograph type	= Rational	Peak discharge	= 0.201 cms
Storm frequency	= 10 yrs	Time to peak	= 1.00 hrs
Time interval	= 1 min	Hyd. volume	= 1 083.9 cum
Drainage area	= 15.700 hectare	Runoff coeff.	= 0.17
Intensity	= 27.300 mm/hr	Tc by User	= 60.00 min
IDF Curve	= IDF_ALSACE.IDF	Asc/Rec limb fact	= 1/2



# Hydrograph Report

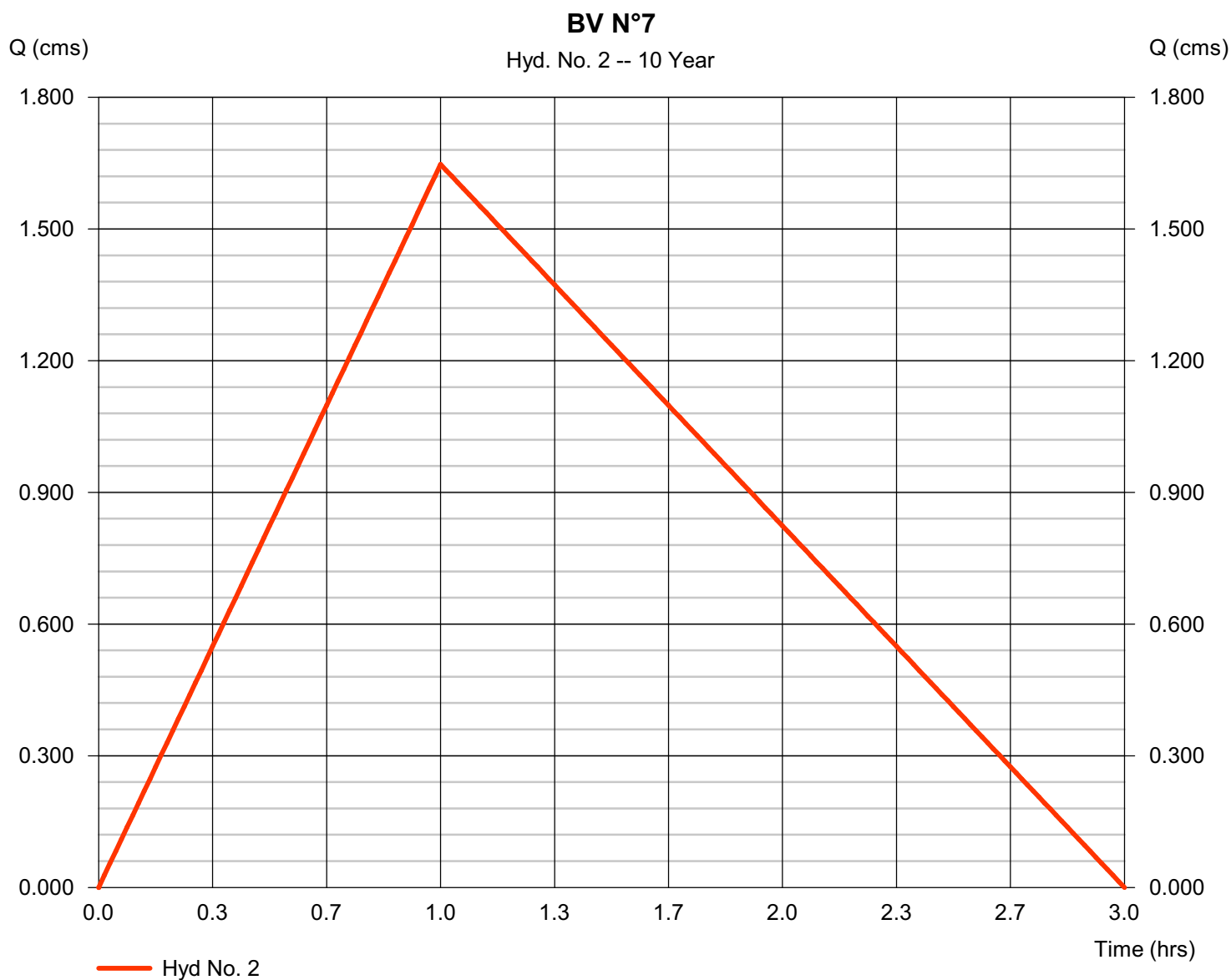
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vendredi, févr 5, 2010

## Hyd. No. 2

BV N°7

Hydrograph type	= Rational	Peak discharge	= 1.647 cms
Storm frequency	= 10 yrs	Time to peak	= 1.00 hrs
Time interval	= 1 min	Hyd. volume	= 8 895.6 cum
Drainage area	= 136.900 hectare	Runoff coeff.	= 0.16
Intensity	= 27.300 mm/hr	Tc by User	= 60.00 min
IDF Curve	= IDF_ALSACE.IDF	Asc/Rec limb fact	= 1/2



# Hydrograph Report

Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2010 by Autodesk, Inc. v9.25

vendredi, févr 5, 2010

## Hyd. No. 3

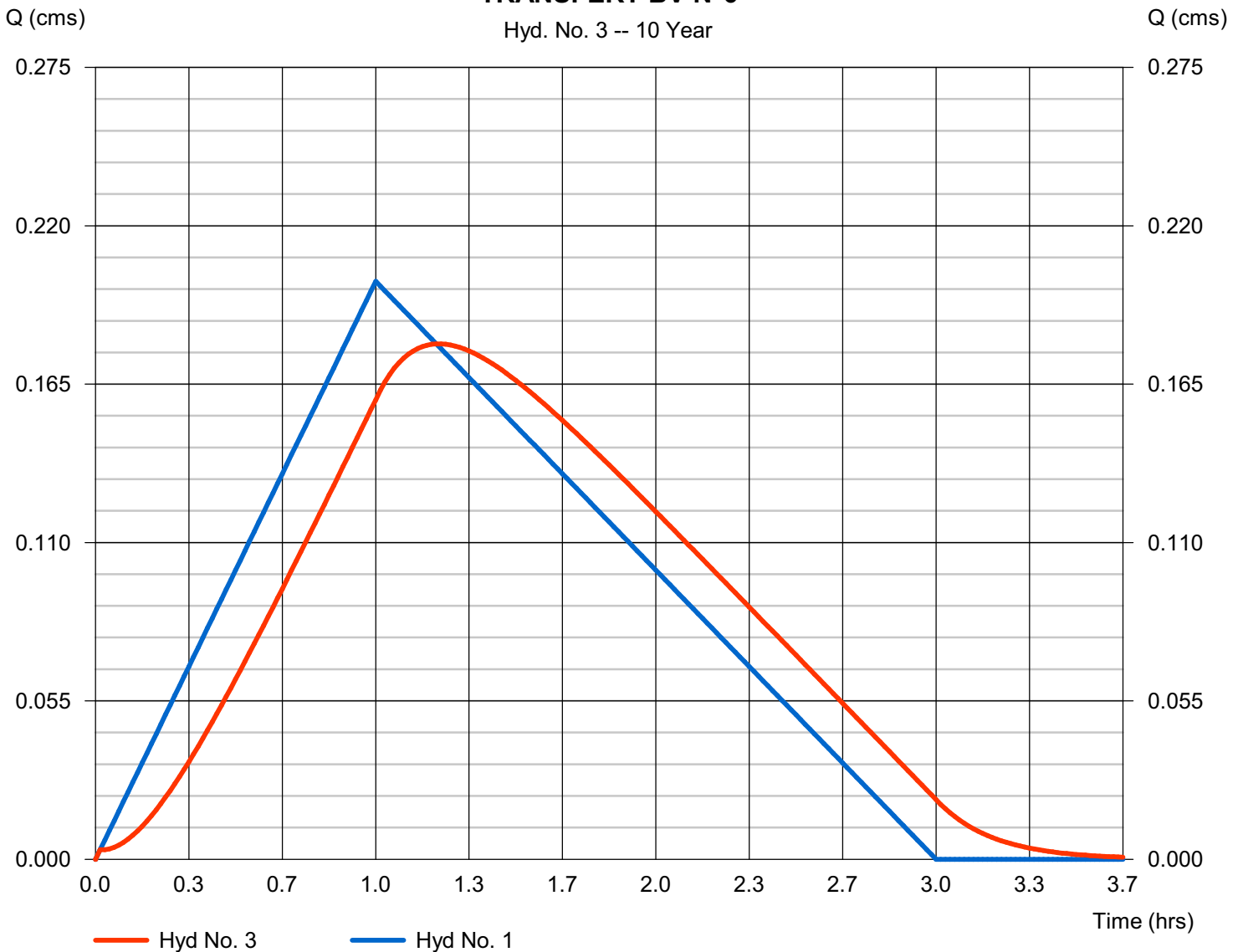
### TRANSFERT BV N°6

Hydrograph type	= Reach	Peak discharge	= 0.179 cms
Storm frequency	= 10 yrs	Time to peak	= 1.23 hrs
Time interval	= 1 min	Hyd. volume	= 1 086.2 cum
Inflow hyd. No.	= 1 - BV N°6	Section type	= Rectangular
Reach length	= 1278.0 m	Channel slope	= 3.7 %
Manning's n	= 0.025	Bottom width	= 2.0 m
Side slope	= 0.0:1	Max. depth	= 4.0 m
Rating curve x	= 3.269	Rating curve m	= 1.426
Ave. velocity	= 1.26 m/s	Routing coeff.	= 0.0807

Modified Att-Kin routing method used.

### TRANSFERT BV N°6

Hyd. No. 3 -- 10 Year





# Hydrograph Report

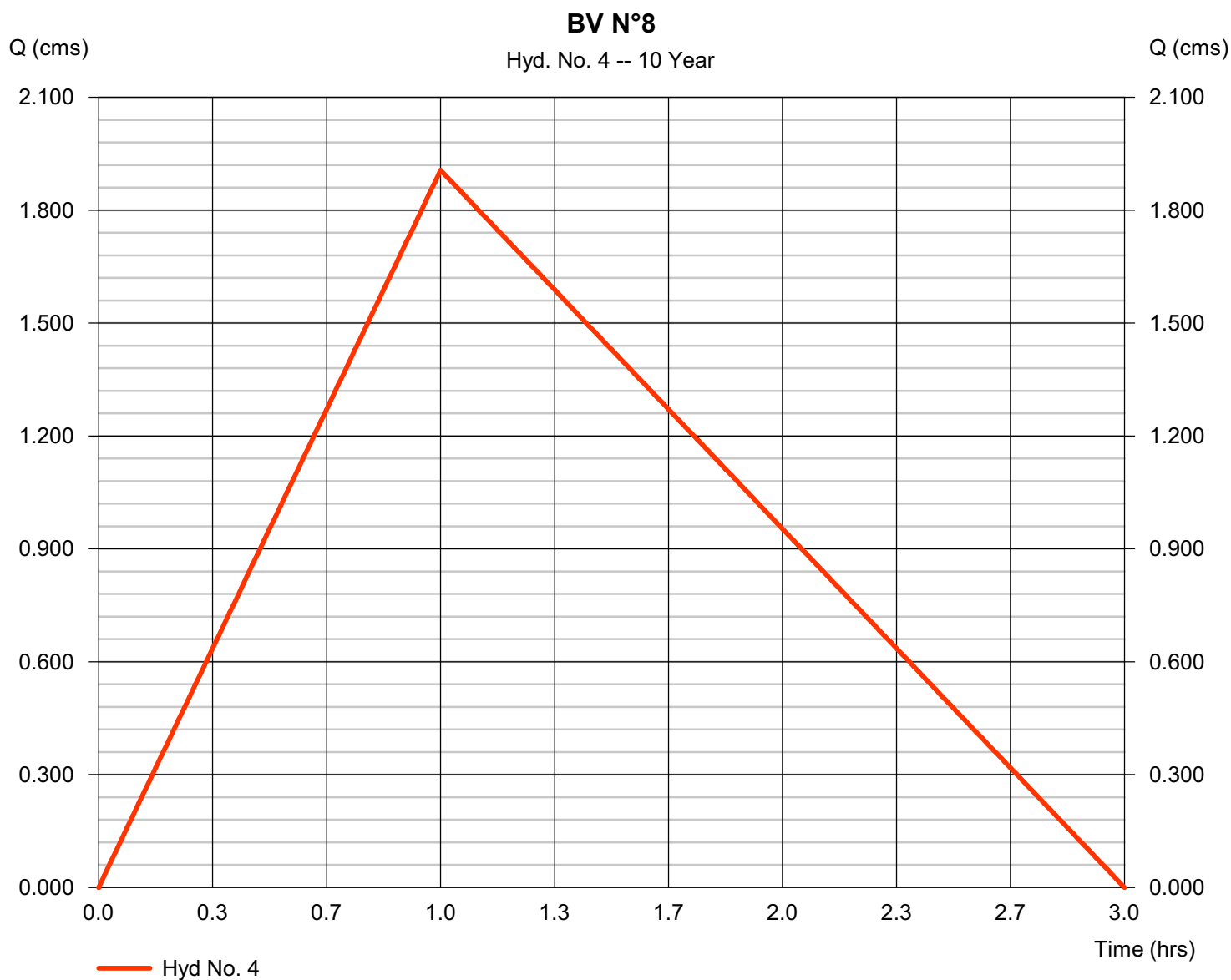
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## Hyd. No. 4

BV N°8

Hydrograph type	= Rational	Peak discharge	= 1.906 cms
Storm frequency	= 10 yrs	Time to peak	= 1.00 hrs
Time interval	= 1 min	Hyd. volume	= 10 293.9 cum
Drainage area	= 149.100 hectare	Runoff coeff.	= 0.17
Intensity	= 27.300 mm/hr	Tc by User	= 60.00 min
IDF Curve	= IDF_ALSACE.IDF	Asc/Rec limb fact	= 1/2



# Hydrograph Report

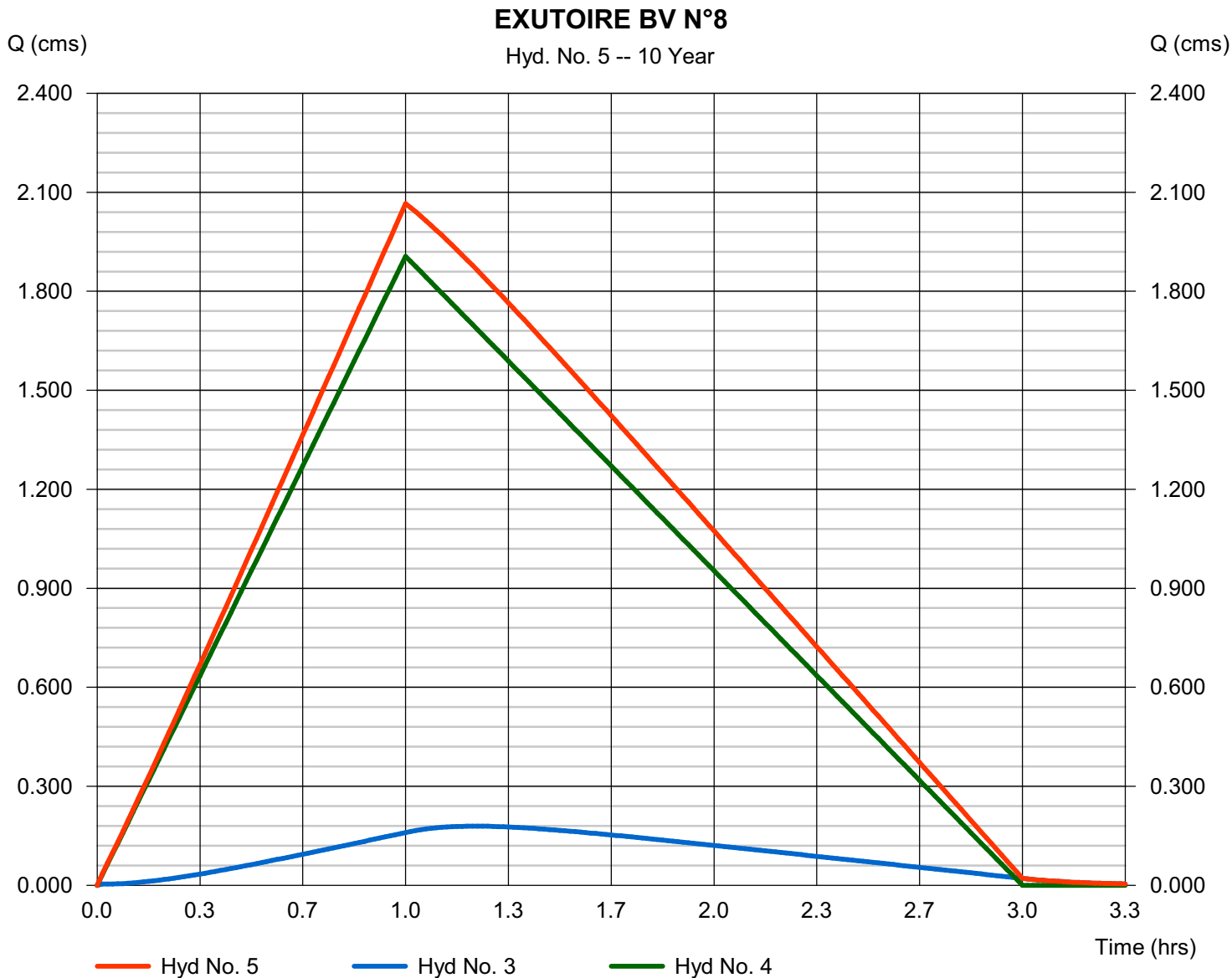
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## Hyd. No. 5

EXUTOIRE BV N°8

Hydrograph type	= Combine	Peak discharge	= 2.066 cms
Storm frequency	= 10 yrs	Time to peak	= 1.00 hrs
Time interval	= 1 min	Hyd. volume	= 11 380.1 cum
Inflow hyds.	= 3, 4	Contrib. drain. area	= 149.100 hectare



# Hydrograph Report

Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2010 by Autodesk, Inc. v9.25

vendredi, févr 5, 2010

## Hyd. No. 6

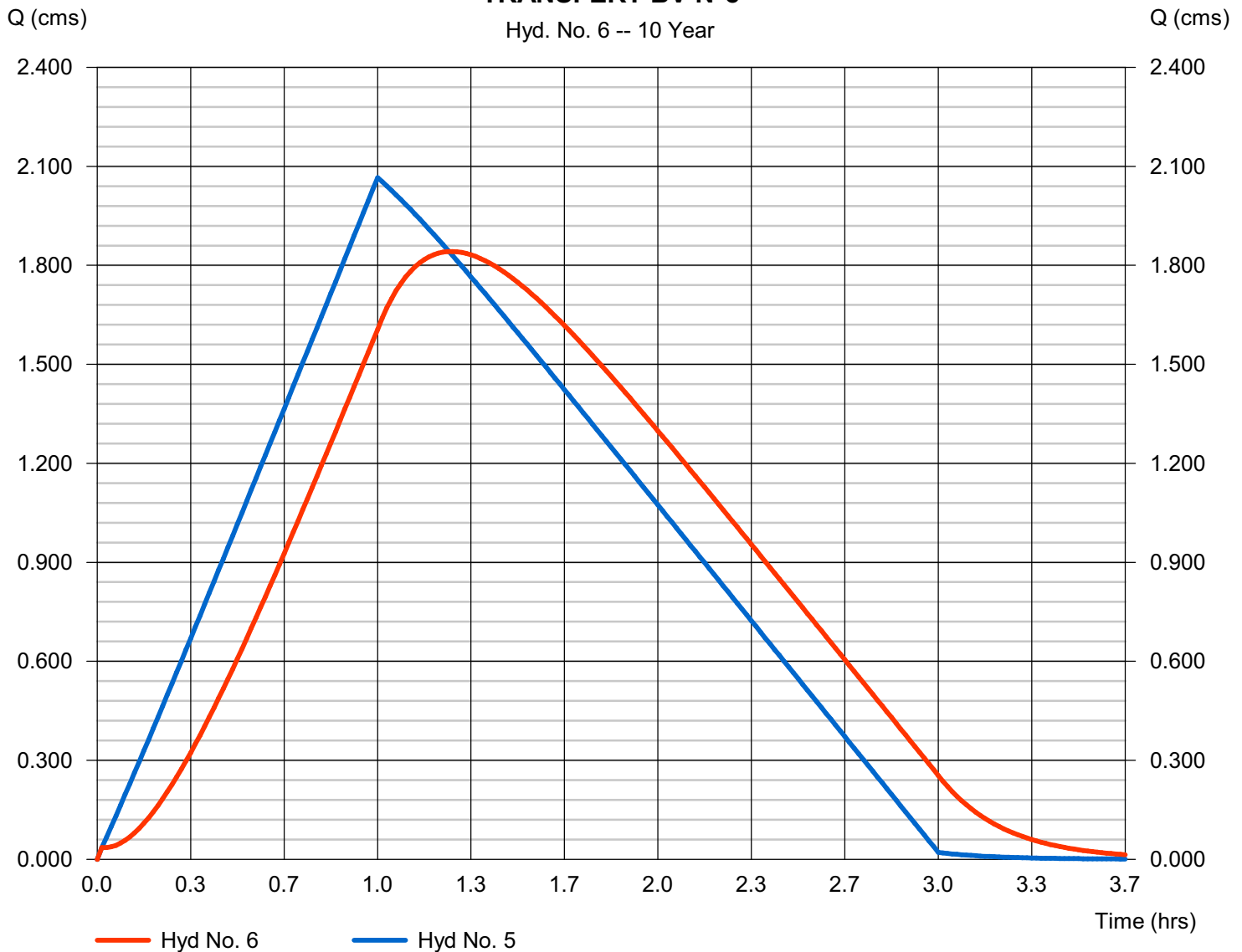
### TRANSFERT BV N°8

Hydrograph type	= Reach	Peak discharge	= 1.842 cms
Storm frequency	= 10 yrs	Time to peak	= 1.27 hrs
Time interval	= 1 min	Hyd. volume	= 11 407.9 cum
Inflow hyd. No.	= 5 - EXUTOIRE BV N°8	Section type	= Rectangular
Reach length	= 1705.0 m	Channel slope	= 0.9 %
Manning's n	= 0.025	Bottom width	= 2.0 m
Side slope	= 0.0:1	Max. depth	= 4.0 m
Rating curve x	= 1.648	Rating curve m	= 1.426
Ave. velocity	= 1.56 m/s	Routing coeff.	= 0.0753

Modified Att-Kin routing method used.

### TRANSFERT BV N°8

Hyd. No. 6 -- 10 Year



# Hydrograph Report

Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2010 by Autodesk, Inc. v9.25

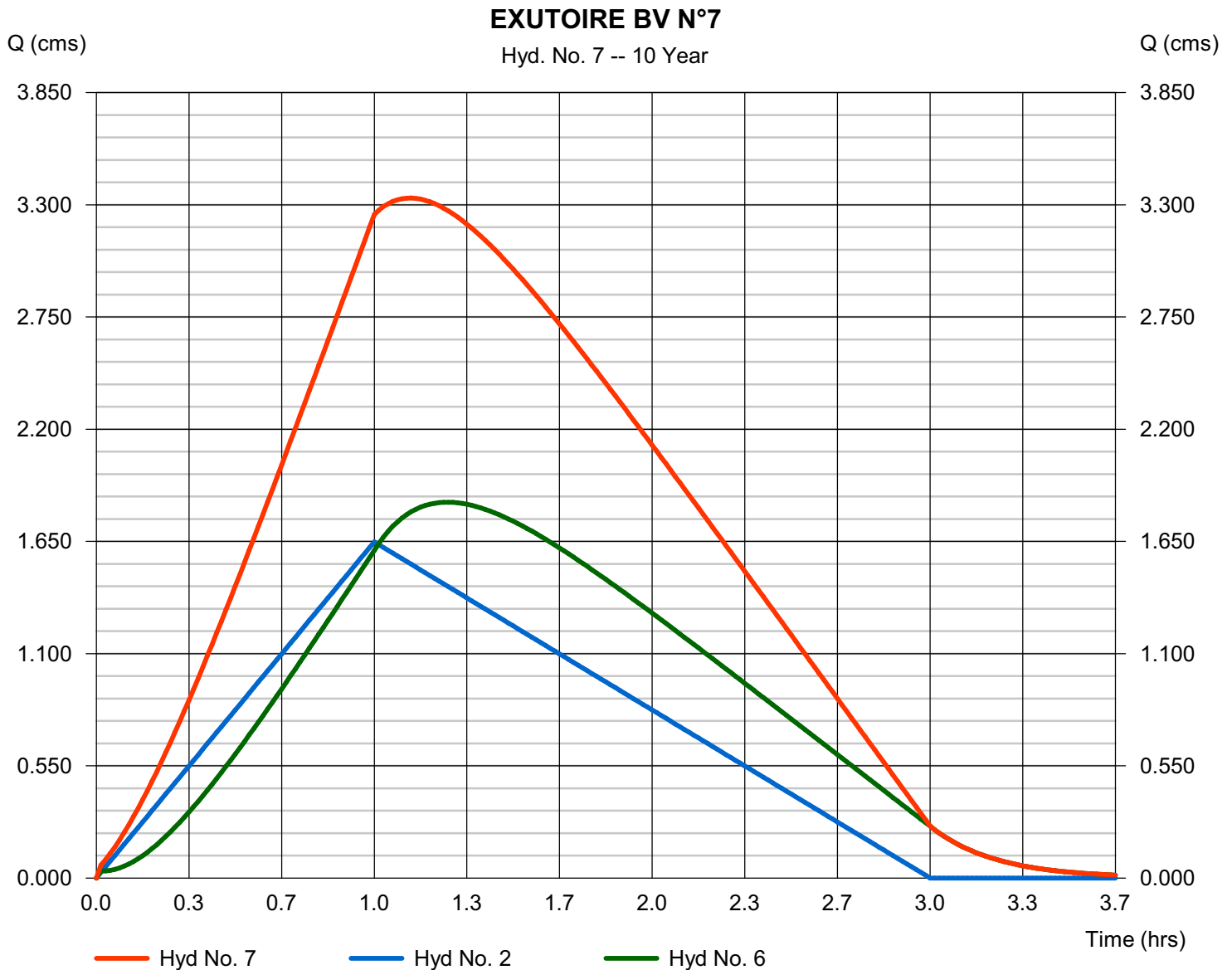
vendredi, févr 5, 2010

## Hyd. No. 7

EXUTOIRE BV N°7

Hydrograph type = Combine  
 Storm frequency = 10 yrs  
 Time interval = 1 min  
 Inflow hyds. = 2, 6

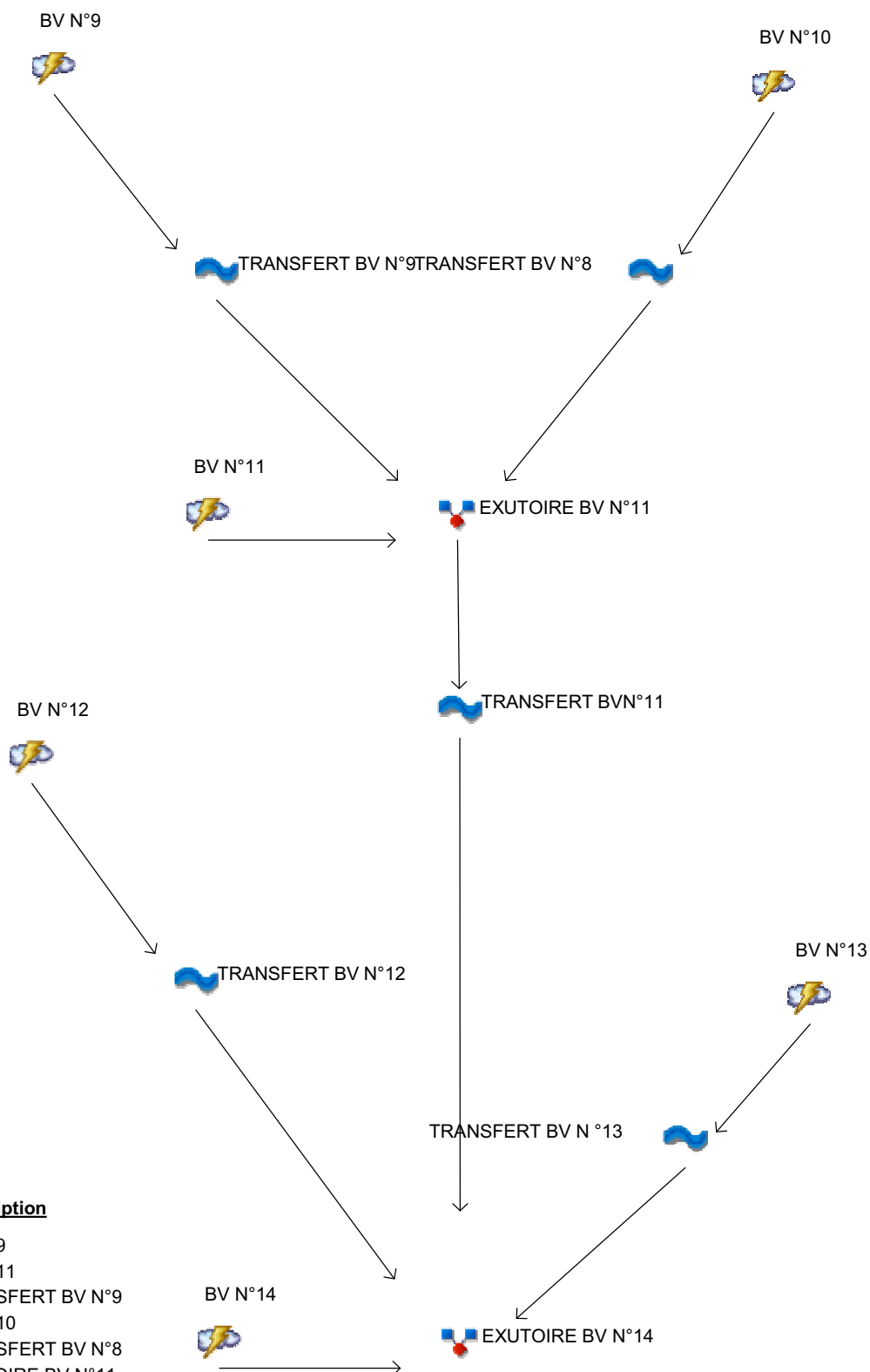
Peak discharge = 3.333 cms  
 Time to peak = 1.13 hrs  
 Hyd. volume = 20 303.5 cum  
 Contrib. drain. area = 136.900 hectare



<b>Watershed Model Schematic.....</b>	<b>1</b>
<b>10 - Year</b>	
<b>Hydrograph Reports.....</b>	<b>2</b>
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Hydrograph No. 7, Combine, EXUTOIRE BV N°7.....	8

# Watershed Model Schematic

Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2010 by Autodesk, Inc. v9.25



## Legend

Hyd.	Origin	Description
1	Rational	BV N°9
2	Rational	BV N°11
3	Reach	TRANSFERT BV N°9
4	Rational	BV N°10
5	Reach	TRANSFERT BV N°8
6	Combine	EXUTOIRE BV N°11
7	Rational	BV N°12
8	Rational	BV N°13
9	Rational	BV N°14
10	Reach	TRANSFERT BV N°11
11	Reach	TRANSFERT BV N°12
12	Reach	TRANSFERT BV N°13
13	Combine	EXUTOIRE BV N°14

# Hydrograph Report

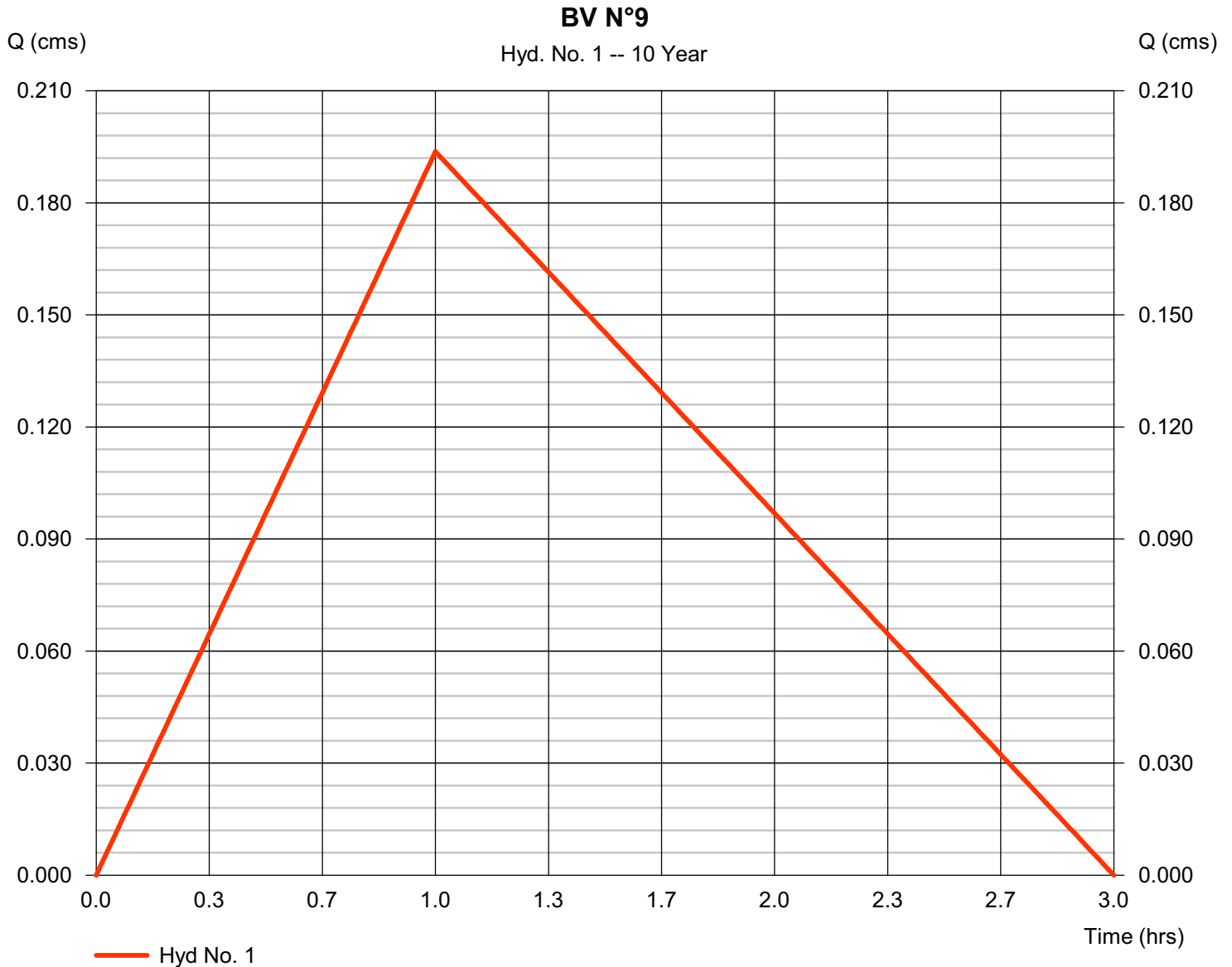
Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2010 by Autodesk, Inc. v9.25

vendredi, févr 5, 2010

## Hyd. No. 1

BV N°9

Hydrograph type	= Rational	Peak discharge	= 0.194 cms
Storm frequency	= 10 yrs	Time to peak	= 1.00 hrs
Time interval	= 1 min	Hyd. volume	= 1 046.2 cum
Drainage area	= 11.200 hectare	Runoff coeff.	= 0.23
Intensity	= 27.300 mm/hr	Tc by User	= 60.00 min
IDF Curve	= IDF_ALSACE.IDF	Asc/Rec limb fact	= 1/2

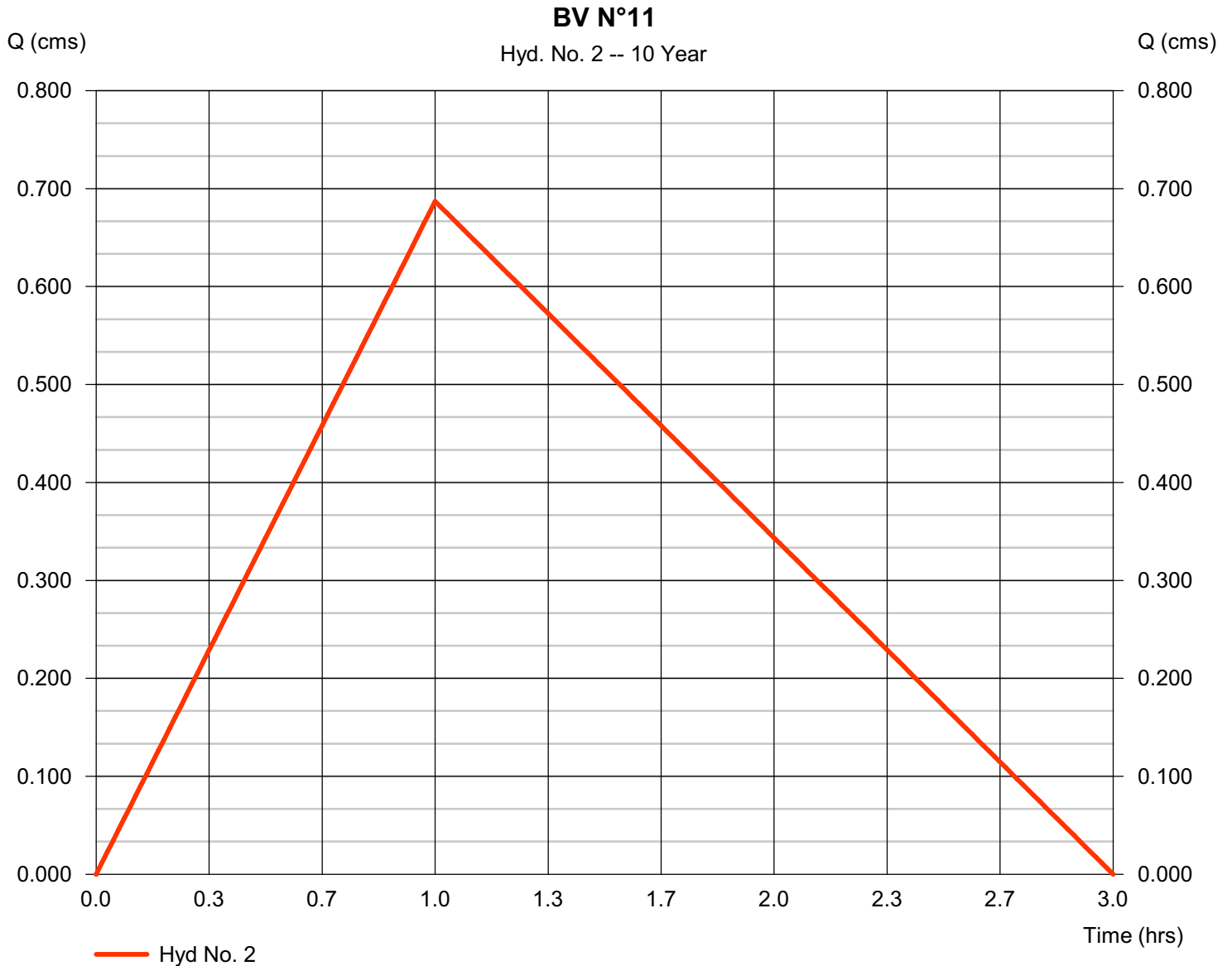


# Hydrograph Report

## Hyd. No. 2

BV N°11

Hydrograph type	= Rational	Peak discharge	= 0.687 cms
Storm frequency	= 10 yrs	Time to peak	= 1.00 hrs
Time interval	= 1 min	Hyd. volume	= 3 709.9 cum
Drainage area	= 60.900 hectare	Runoff coeff.	= 0.15
Intensity	= 27.300 mm/hr	Tc by User	= 60.00 min
IDF Curve	= IDF_ALSACE.IDF	Asc/Rec limb fact	= 1/2





# Hydrograph Report

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vendredi, févr 5, 2010

## Hyd. No. 3

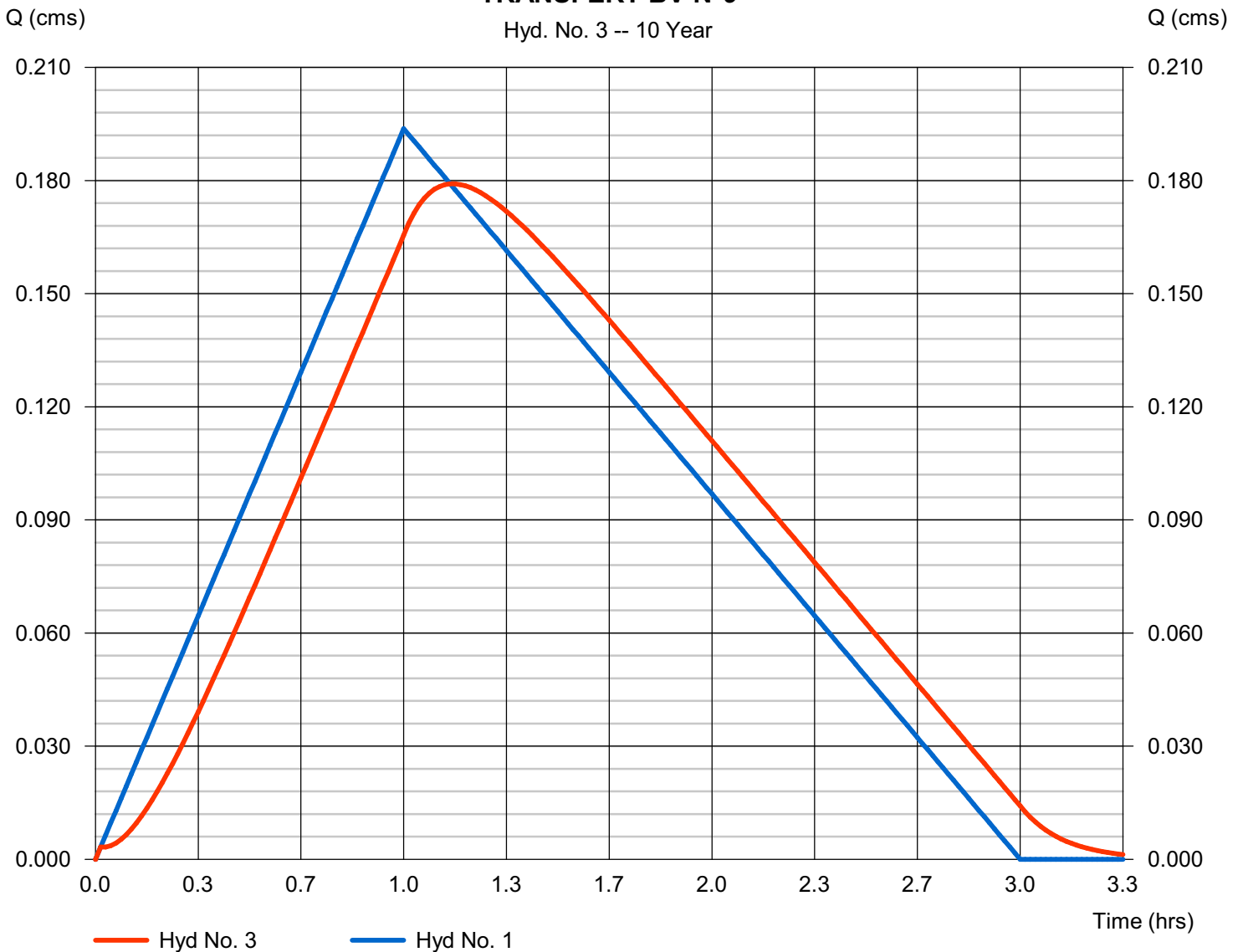
### TRANSFERT BV N°9

Hydrograph type	= Reach	Peak discharge	= 0.179 cms
Storm frequency	= 10 yrs	Time to peak	= 1.17 hrs
Time interval	= 1 min	Hyd. volume	= 1 047.7 cum
Inflow hyd. No.	= 1 - BV N°9	Section type	= Rectangular
Reach length	= 816.0 m	Channel slope	= 3.0 %
Manning's n	= 0.025	Bottom width	= 2.0 m
Side slope	= 0.0:1	Max. depth	= 4.0 m
Rating curve x	= 2.943	Rating curve m	= 1.426
Ave. velocity	= 1.15 m/s	Routing coeff.	= 0.1141

Modified Att-Kin routing method used.

### TRANSFERT BV N°9

Hyd. No. 3 -- 10 Year



# Hydrograph Report

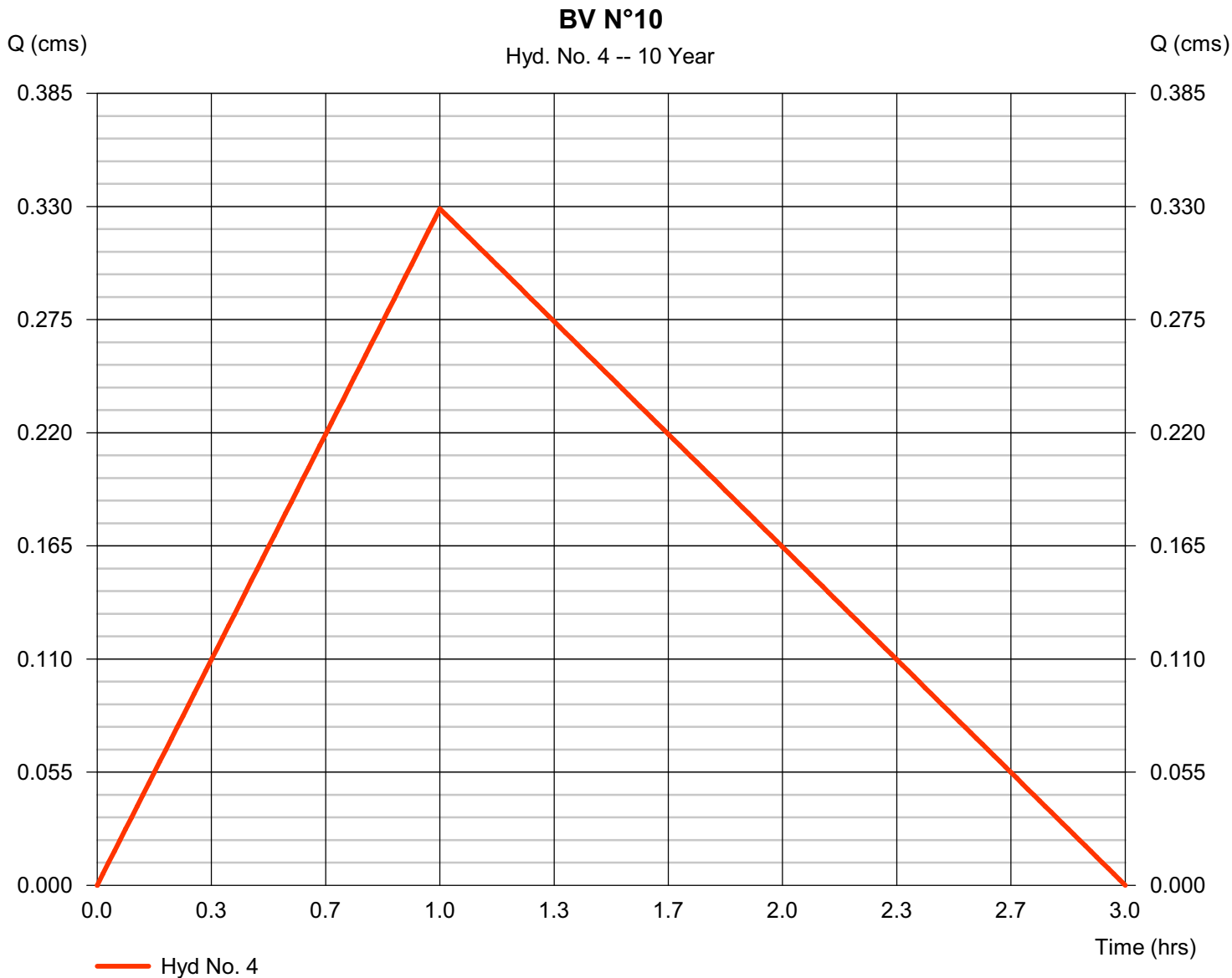
Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2010 by Autodesk, Inc. v9.25

vendredi, févr 5, 2010

## Hyd. No. 4

BV N°10

Hydrograph type	= Rational	Peak discharge	= 0.329 cms
Storm frequency	= 10 yrs	Time to peak	= 1.00 hrs
Time interval	= 1 min	Hyd. volume	= 1 776.4 cum
Drainage area	= 24.300 hectare	Runoff coeff.	= 0.18
Intensity	= 27.300 mm/hr	Tc by User	= 60.00 min
IDF Curve	= IDF_ALSACE.IDF	Asc/Rec limb fact	= 1/2



# Hydrograph Report

Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2010 by Autodesk, Inc. v9.25

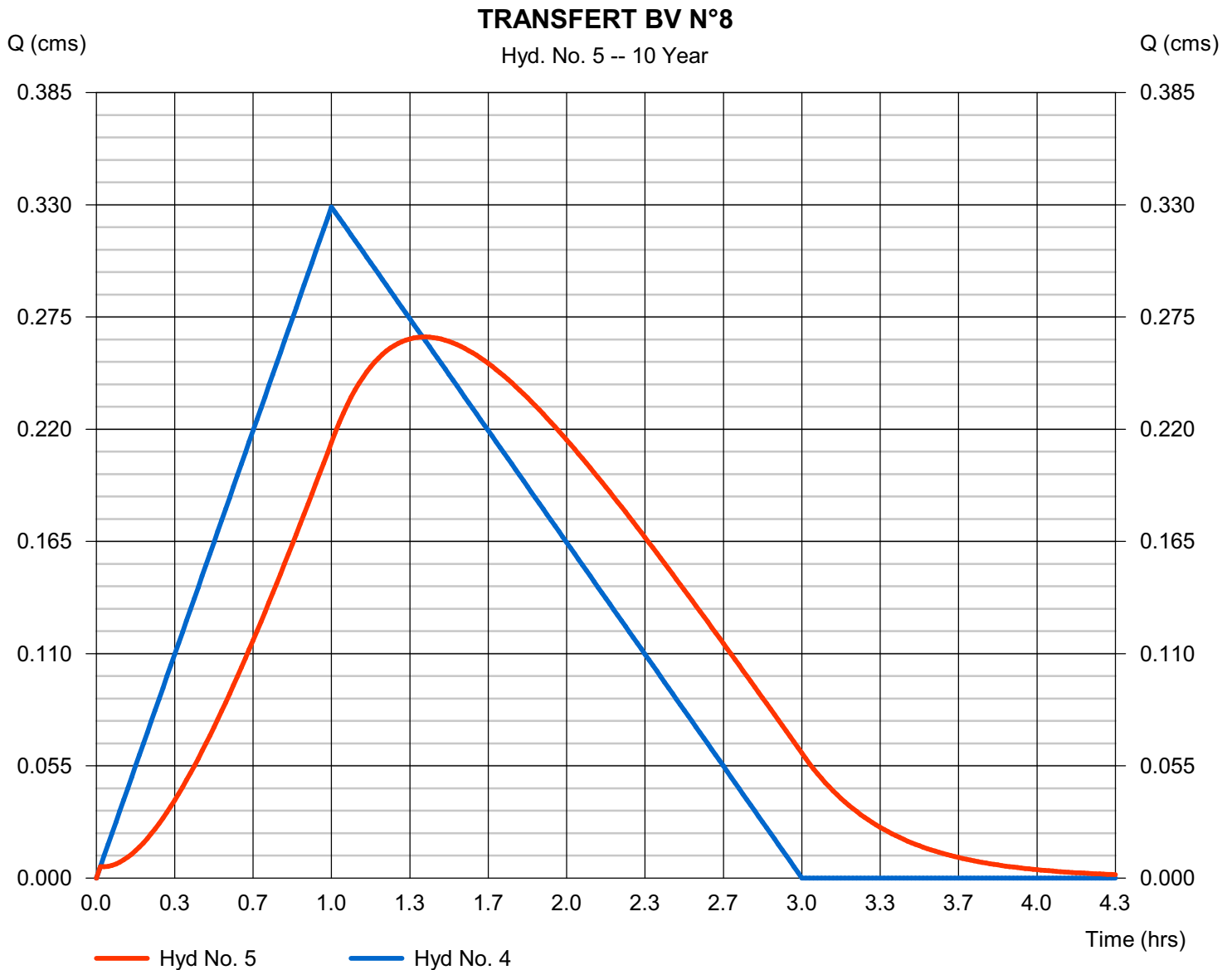
vendredi, févr 5, 2010

## Hyd. No. 5

### TRANSFERT BV N°8

Hydrograph type	= Reach	Peak discharge	= 0.265 cms
Storm frequency	= 10 yrs	Time to peak	= 1.40 hrs
Time interval	= 1 min	Hyd. volume	= 1 783.4 cum
Inflow hyd. No.	= 4 - BV N°10	Section type	= Rectangular
Reach length	= 1705.0 m	Channel slope	= 0.9 %
Manning's n	= 0.025	Bottom width	= 2.0 m
Side slope	= 0.0:1	Max. depth	= 4.0 m
Rating curve x	= 1.648	Rating curve m	= 1.426
Ave. velocity	= 0.90 m/s	Routing coeff.	= 0.0442

Modified Att-Kin routing method used.



# Hydrograph Report

Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2010 by Autodesk, Inc. v9.25

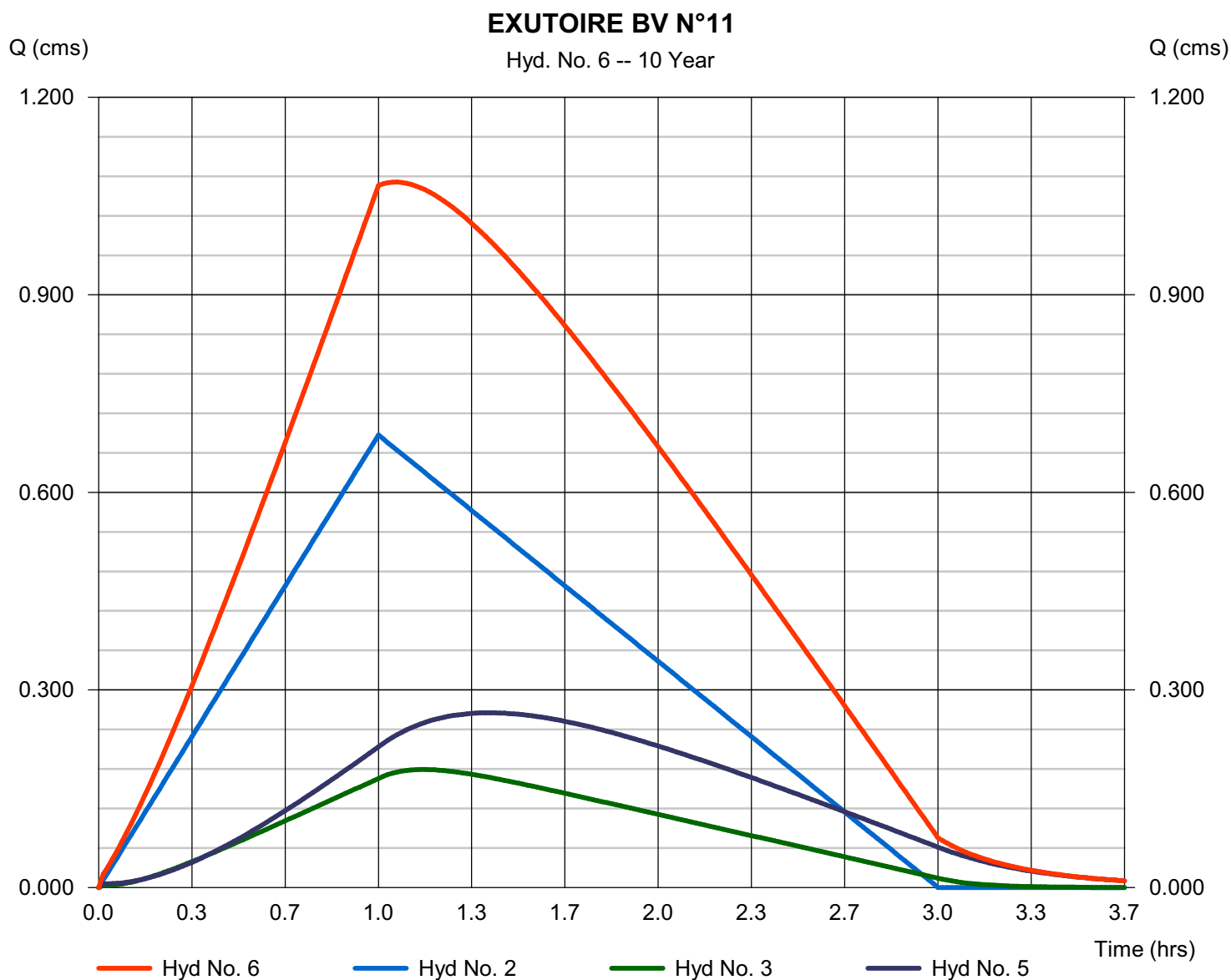
vendredi, févr 5, 2010

## Hyd. No. 6

EXUTOIRE BV N°11

Hydrograph type = Combine  
 Storm frequency = 10 yrs  
 Time interval = 1 min  
 Inflow hyds. = 2, 3, 5

Peak discharge = 1.071 cms  
 Time to peak = 1.07 hrs  
 Hyd. volume = 6 541.0 cum  
 Contrib. drain. area = 60.900 hectare



# Hydrograph Report

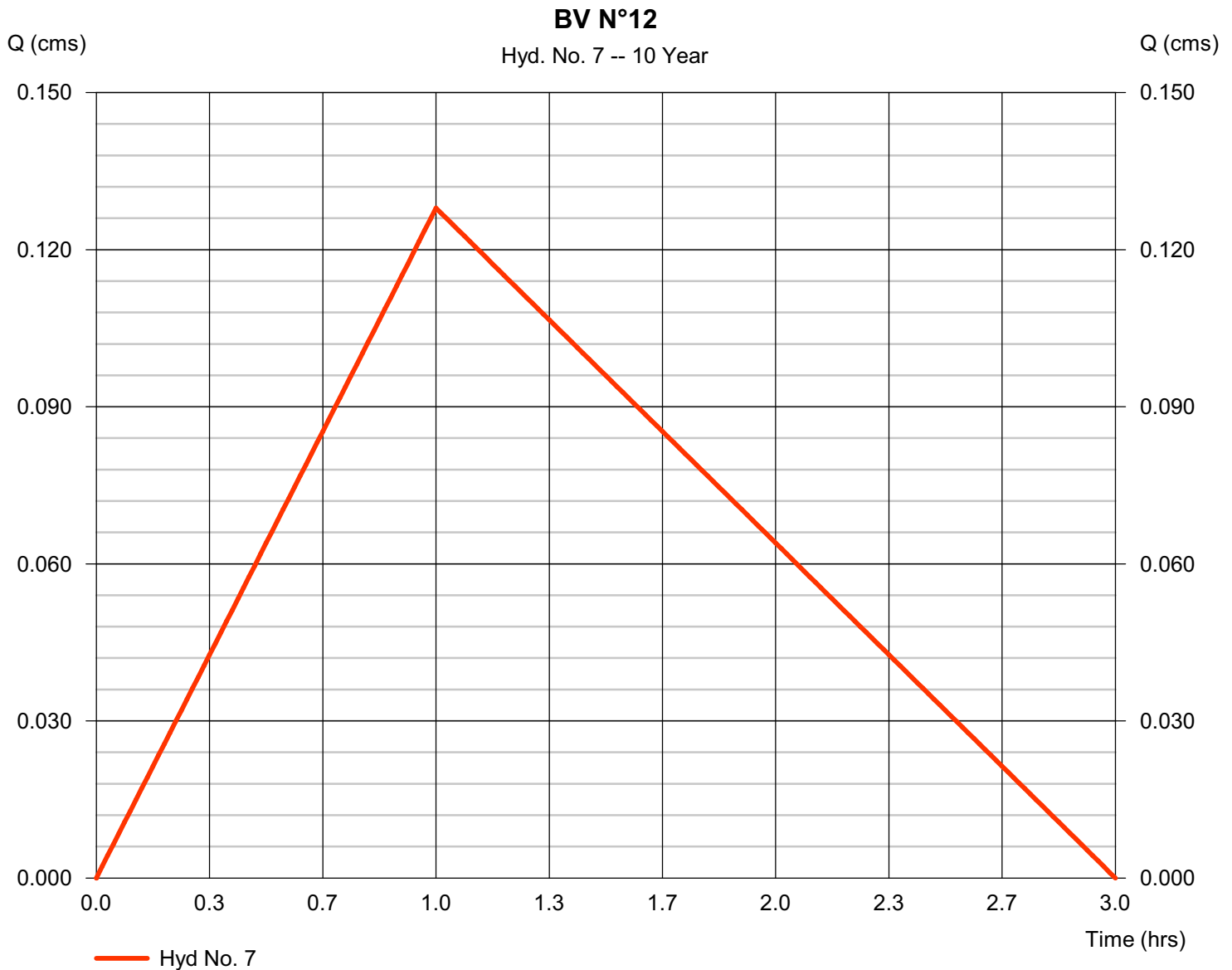
Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2010 by Autodesk, Inc. v9.25

vendredi, févr 5, 2010

## Hyd. No. 7

BV N°12

Hydrograph type	= Rational	Peak discharge	= 0.128 cms
Storm frequency	= 10 yrs	Time to peak	= 1.00 hrs
Time interval	= 1 min	Hyd. volume	= 690.8 cum
Drainage area	= 8.100 hectare	Runoff coeff.	= 0.21
Intensity	= 27.300 mm/hr	Tc by User	= 60.00 min
IDF Curve	= IDF_ALSACE.IDF	Asc/Rec limb fact	= 1/2



# Hydrograph Report

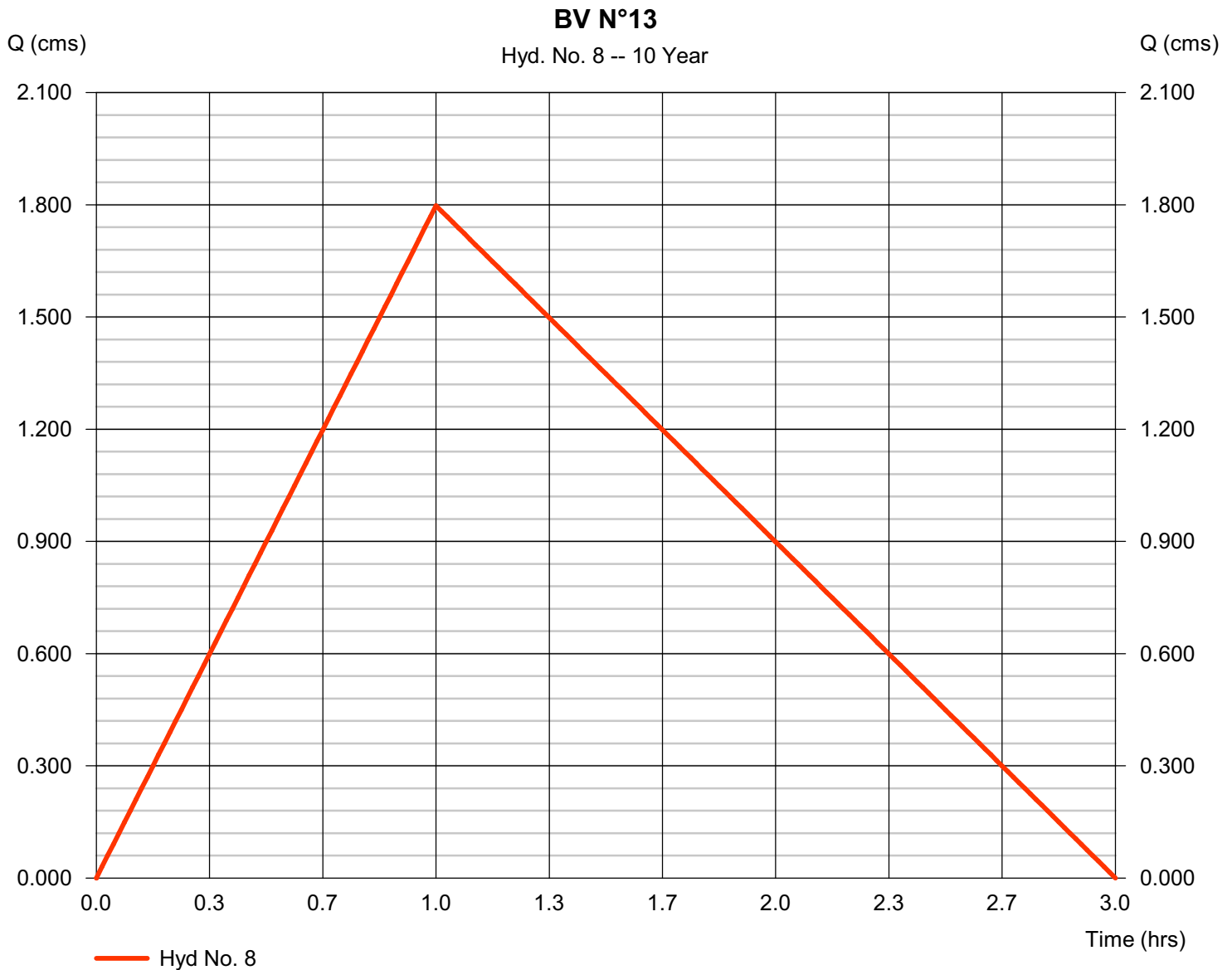
Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2010 by Autodesk, Inc. v9.25

vendredi, févr 5, 2010

## Hyd. No. 8

BV N°13

Hydrograph type	= Rational	Peak discharge	= 1.798 cms
Storm frequency	= 10 yrs	Time to peak	= 1.00 hrs
Time interval	= 1 min	Hyd. volume	= 9 707.0 cum
Drainage area	= 140.600 hectare	Runoff coeff.	= 0.17
Intensity	= 27.300 mm/hr	Tc by User	= 60.00 min
IDF Curve	= IDF_ALSACE.IDF	Asc/Rec limb fact	= 1/2

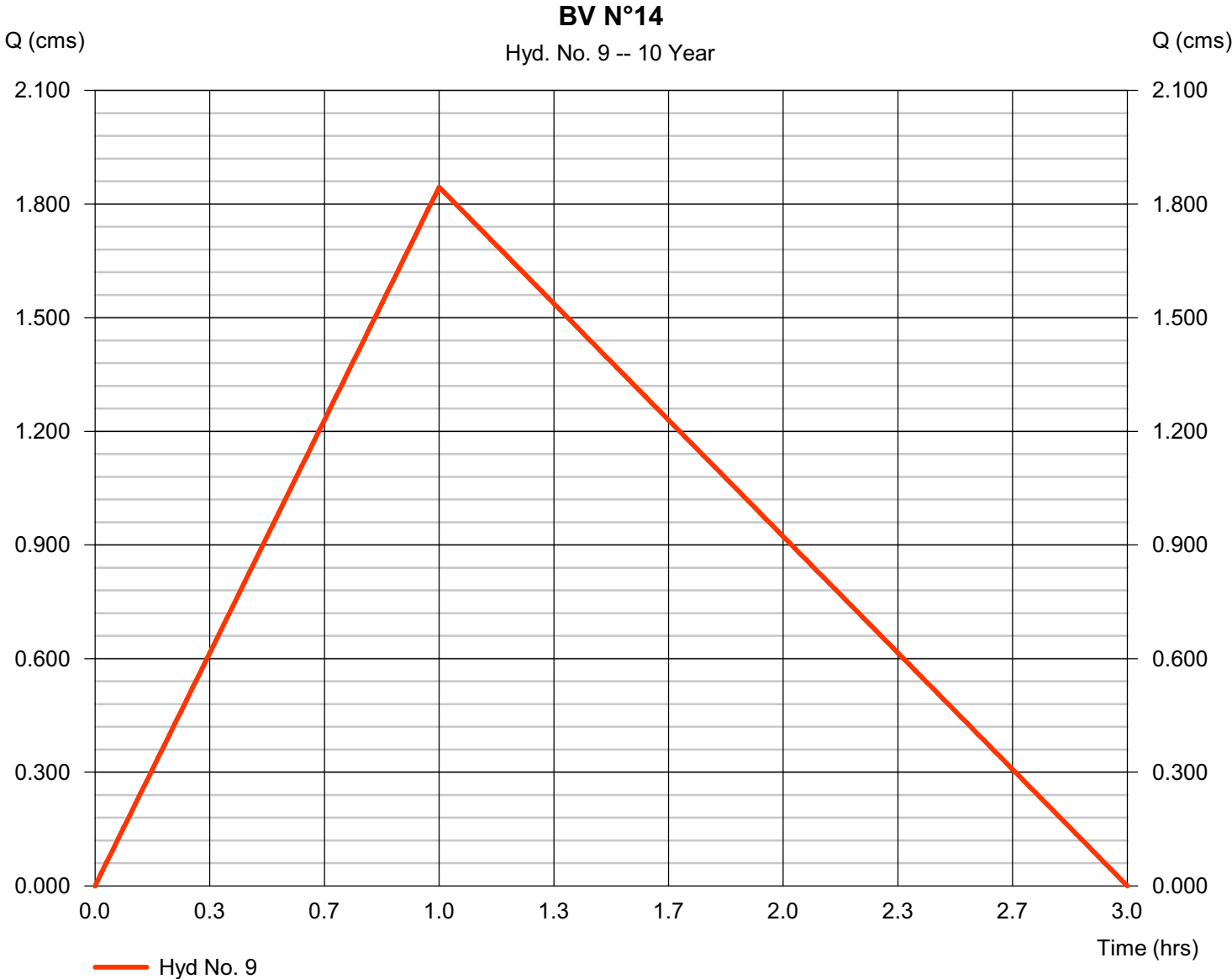


# Hydrograph Report

## Hyd. No. 9

BV N°14

Hydrograph type	= Rational	Peak discharge	= 1.845 cms
Storm frequency	= 10 yrs	Time to peak	= 1.00 hrs
Time interval	= 1 min	Hyd. volume	= 9 961.3 cum
Drainage area	= 153.300 hectare	Runoff coeff.	= 0.16
Intensity	= 27.300 mm/hr	Tc by User	= 60.00 min
IDF Curve	= IDF_ALSACE.IDF	Asc/Rec limb fact	= 1/2



# Hydrograph Report

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vendredi, févr 5, 2010

## Hyd. No. 10

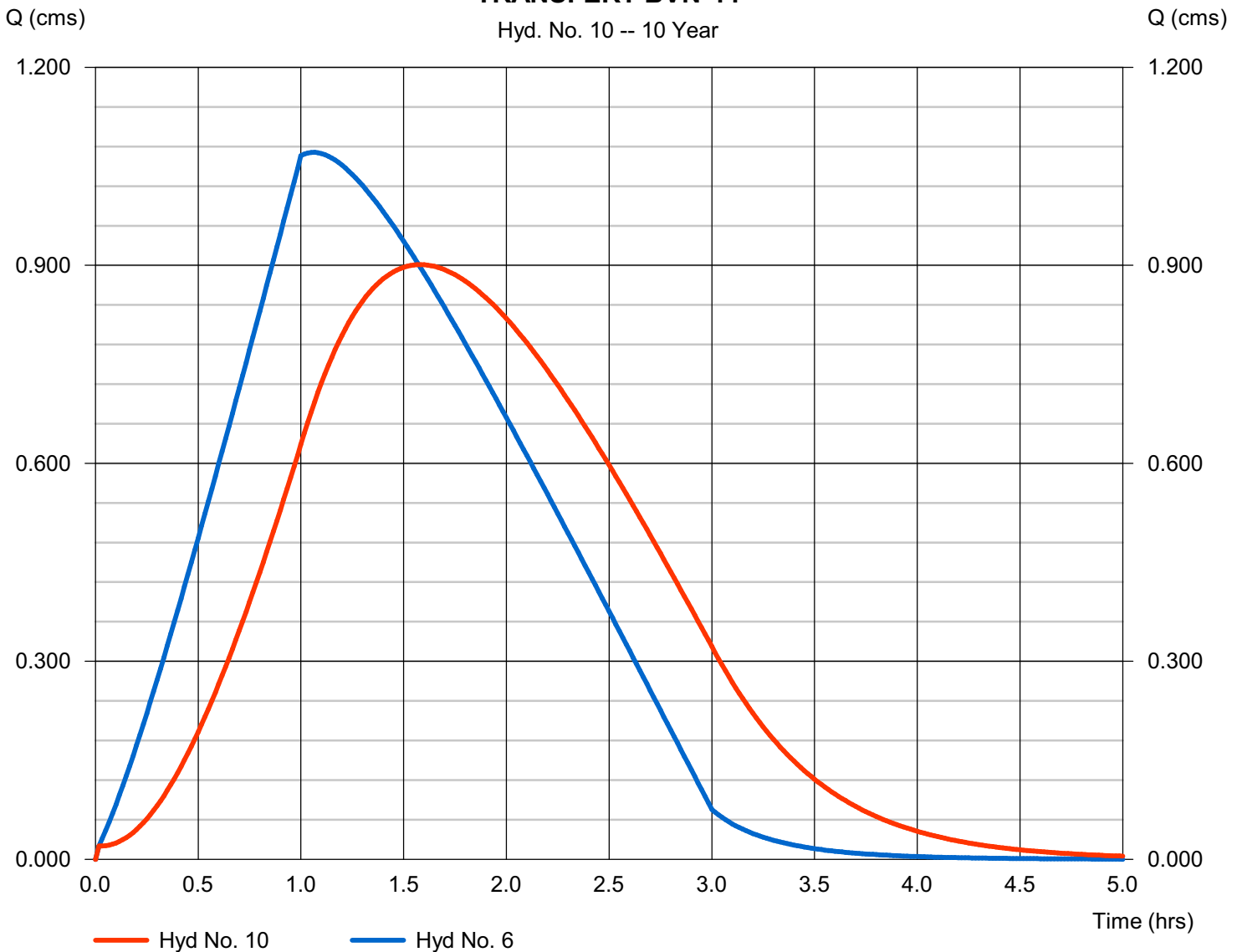
### TRANSFERT BVN°11

Hydrograph type	= Reach	Peak discharge	= 0.901 cms
Storm frequency	= 10 yrs	Time to peak	= 1.58 hrs
Time interval	= 1 min	Hyd. volume	= 6 571.8 cum
Inflow hyd. No.	= 6 - EXUTOIRE BV N°11	Section type	= Trapezoidal
Reach length	= 2352.0 m	Channel slope	= 0.6 %
Manning's n	= 0.025	Bottom width	= 2.0 m
Side slope	= 0.0:1	Max. depth	= 4.0 m
Rating curve x	= 1.305	Rating curve m	= 1.426
Ave. velocity	= 1.09 m/s	Routing coeff.	= 0.0388

Modified Att-Kin routing method used.

### TRANSFERT BVN°11

Hyd. No. 10 -- 10 Year





# Hydrograph Report

Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2010 by Autodesk, Inc. v9.25

vendredi, févr 5, 2010

## Hyd. No. 11

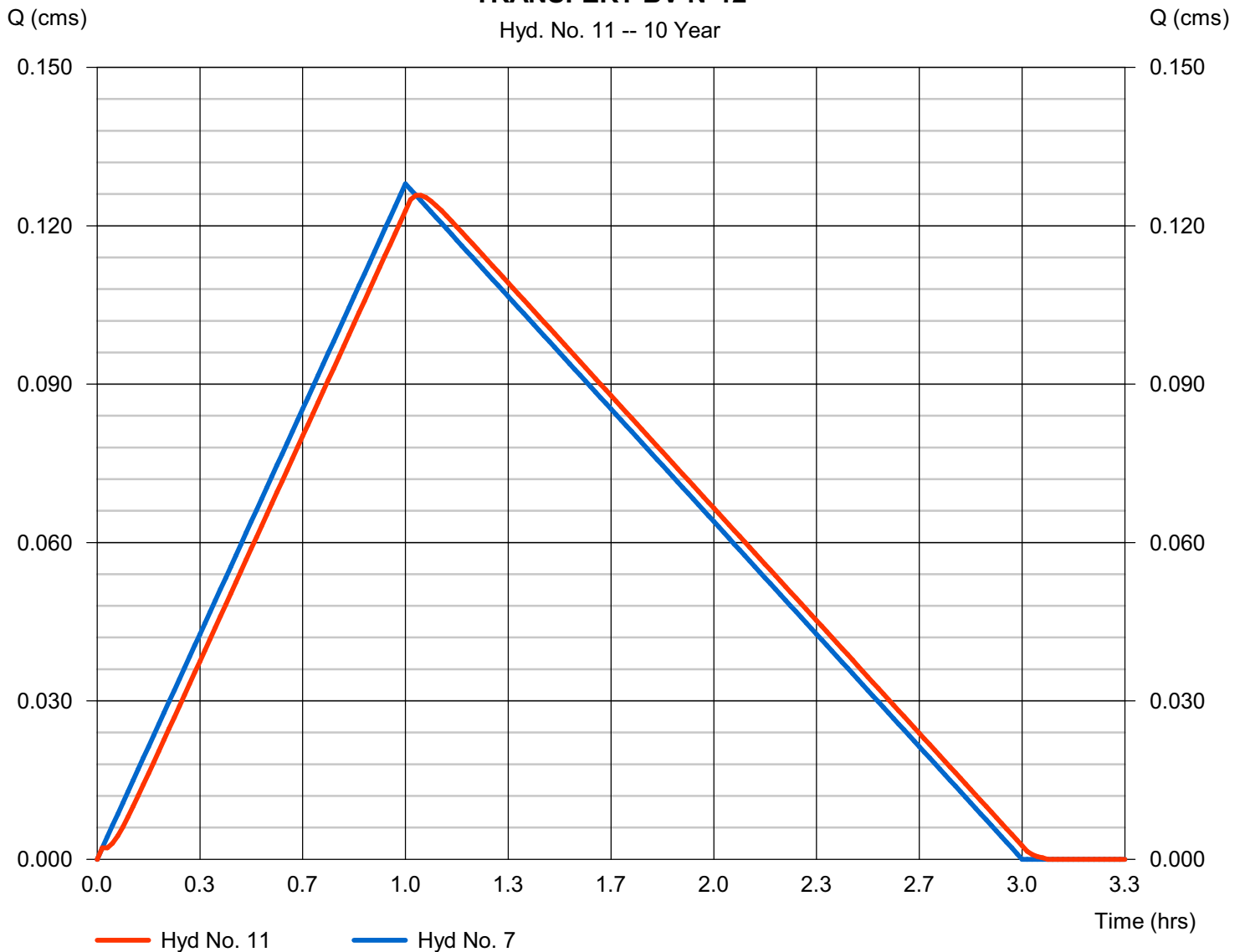
### TRANSFERT BV N°12

Hydrograph type	= Reach	Peak discharge	= 0.126 cms
Storm frequency	= 10 yrs	Time to peak	= 1.05 hrs
Time interval	= 1 min	Hyd. volume	= 691.1 cum
Inflow hyd. No.	= 7 - BV N°12	Section type	= Rectangular
Reach length	= 268.0 m	Channel slope	= 3.3 %
Manning's n	= 0.011	Bottom width	= 3.5 m
Side slope	= 0.0:1	Max. depth	= 0.1 m
Rating curve x	= 4.831	Rating curve m	= 1.639
Ave. velocity	= 1.43 m/s	Routing coeff.	= 0.4167

Modified Att-Kin routing method used.

### TRANSFERT BV N°12

Hyd. No. 11 -- 10 Year



# Hydrograph Report

## Hyd. No. 12

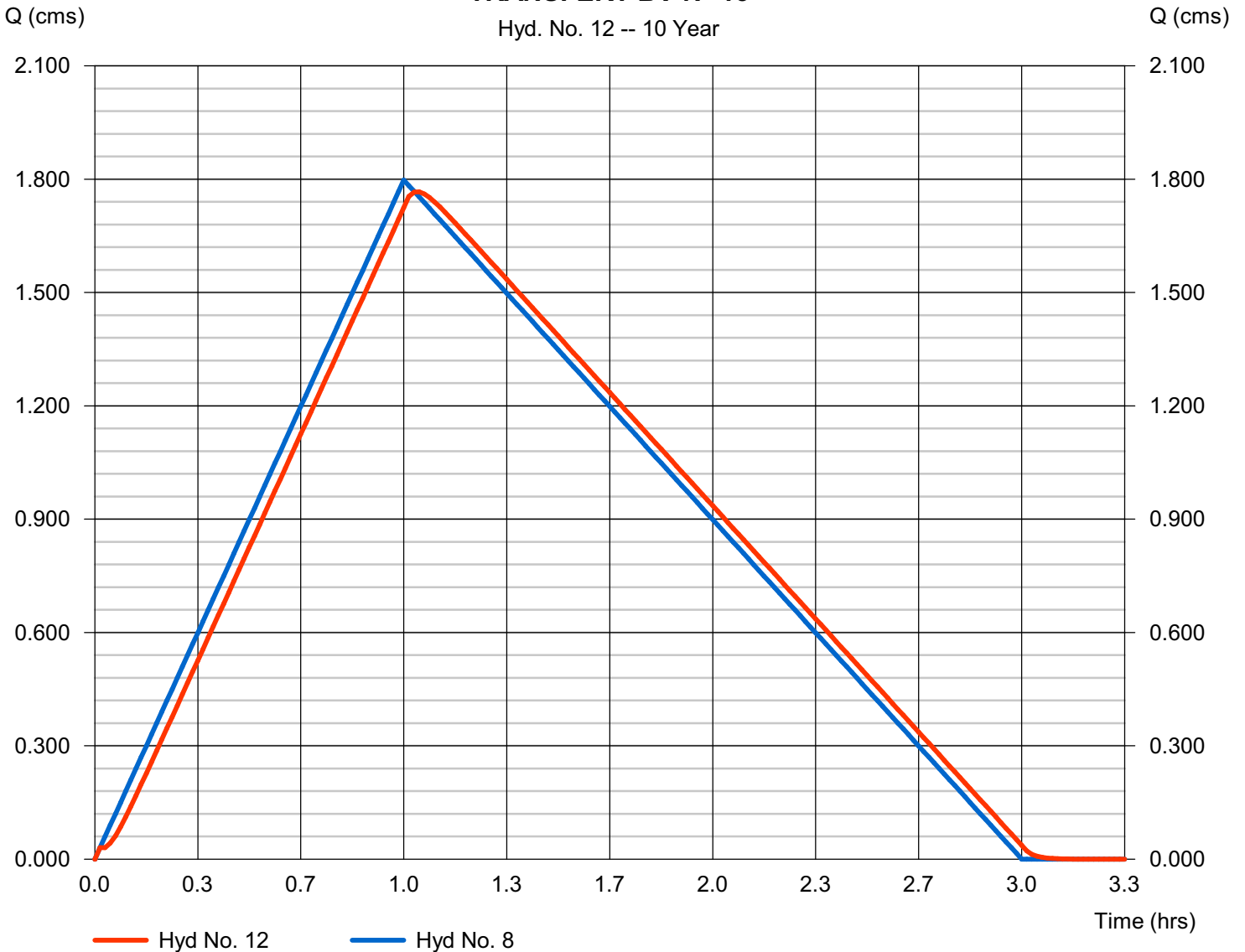
TRANSFERT BV N °13

Hydrograph type	= Reach	Peak discharge	= 1.767 cms
Storm frequency	= 10 yrs	Time to peak	= 1.05 hrs
Time interval	= 1 min	Hyd. volume	= 9 711.4 cum
Inflow hyd. No.	= 8 - BV N°13	Section type	= Rectangular
Reach length	= 485.0 m	Channel slope	= 1.4 %
Manning's n	= 0.013	Bottom width	= 0.7 m
Side slope	= 0.0:1	Max. depth	= 1.4 m
Rating curve x	= 7.789	Rating curve m	= 1.213
Ave. velocity	= 3.43 m/s	Routing coeff.	= 0.4092

Modified Att-Kin routing method used.

### TRANSFERT BV N °13

Hyd. No. 12 -- 10 Year



# Hydrograph Report

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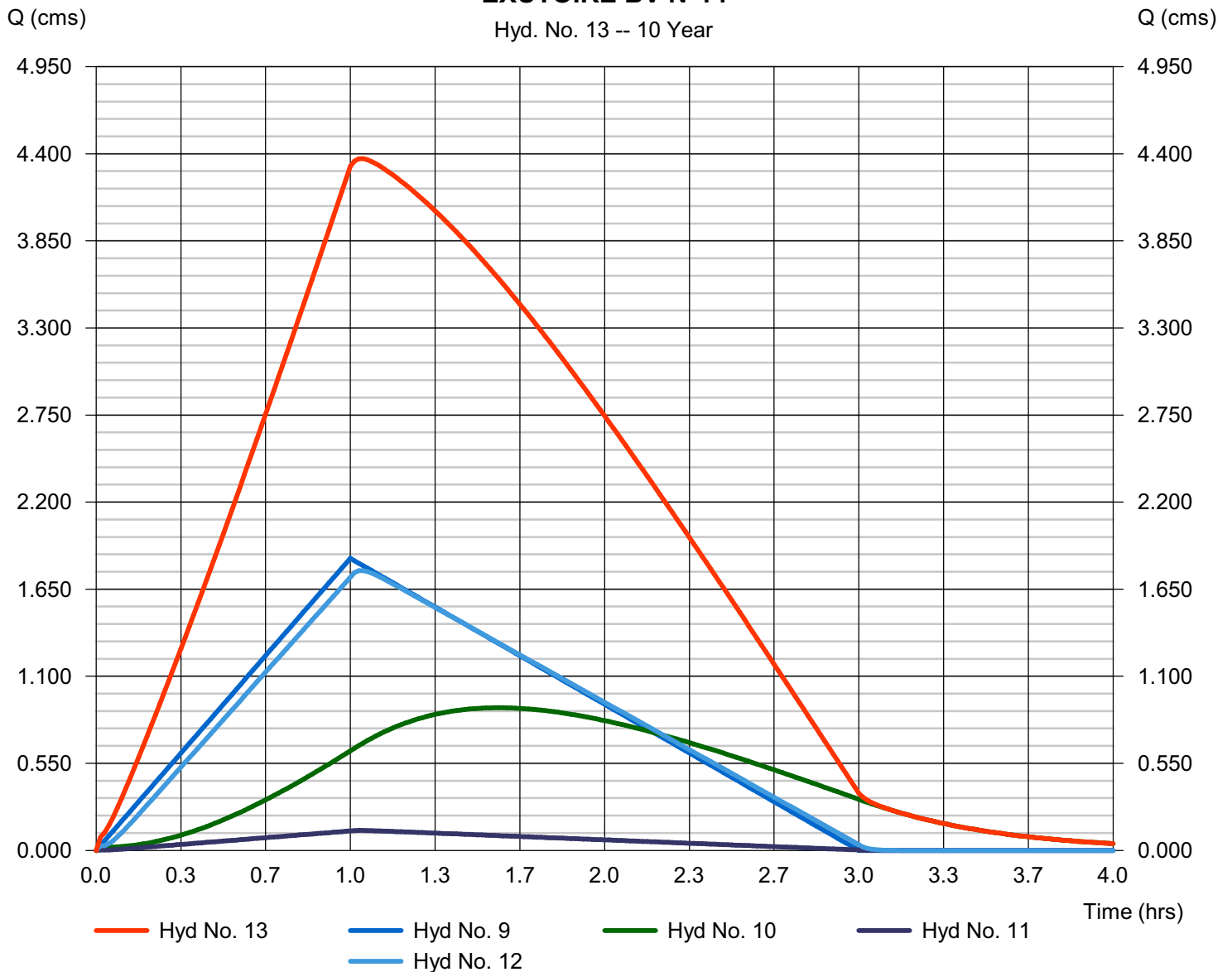
## Hyd. No. 13

EXUTOIRE BV N°14

Hydrograph type	= Combine	Peak discharge	= 4.369 cms
Storm frequency	= 10 yrs	Time to peak	= 1.05 hrs
Time interval	= 1 min	Hyd. volume	= 26 935.5 cum
Inflow hyds.	= 9, 10, 11, 12	Contrib. drain. area	= 153.300 hectare

### EXUTOIRE BV N°14

Hyd. No. 13 -- 10 Year



## **Watershed Model Schematic..... 1**

### **10 - Year**

#### **Hydrograph Reports..... 2**

Hydrograph No. 1, Rational, BV N°9..... 2

Hydrograph No. 2, Rational, BV N°11..... 3

Hydrograph No. 3, Reach, TRANSFERT BV N°9..... 4

Hydrograph No. 4, Rational, BV N°10..... 5

Hydrograph No. 5, Reach, TRANSFERT BV N°8..... 6

Hydrograph No. 6, Combine, EXUTOIRE BV N°11..... 7

Hydrograph No. 7, Rational, BV N°12..... 8

Hydrograph No. 8, Rational, BV N°13..... 9

Hydrograph No. 9, Rational, BV N°14..... 10

Hydrograph No. 10, Reach, TRANSFERT BV N°11..... 11

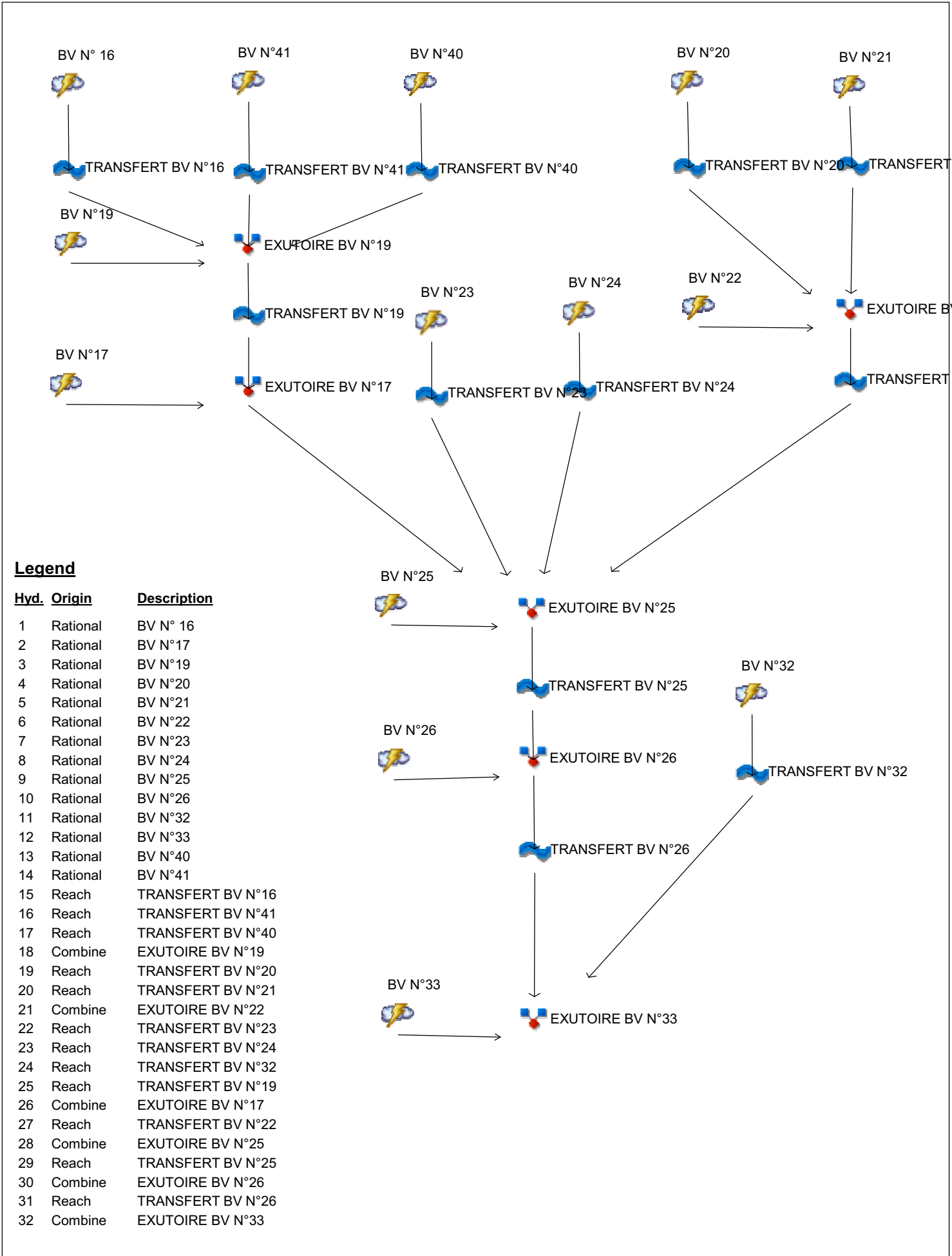
Hydrograph No. 11, Reach, TRANSFERT BV N°12..... 12

Hydrograph No. 12, Reach, TRANSFERT BV N °13..... 13

Hydrograph No. 13, Combine, EXUTOIRE BV N°14..... 14

# Watershed Model Schematic

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# Hydrograph Report

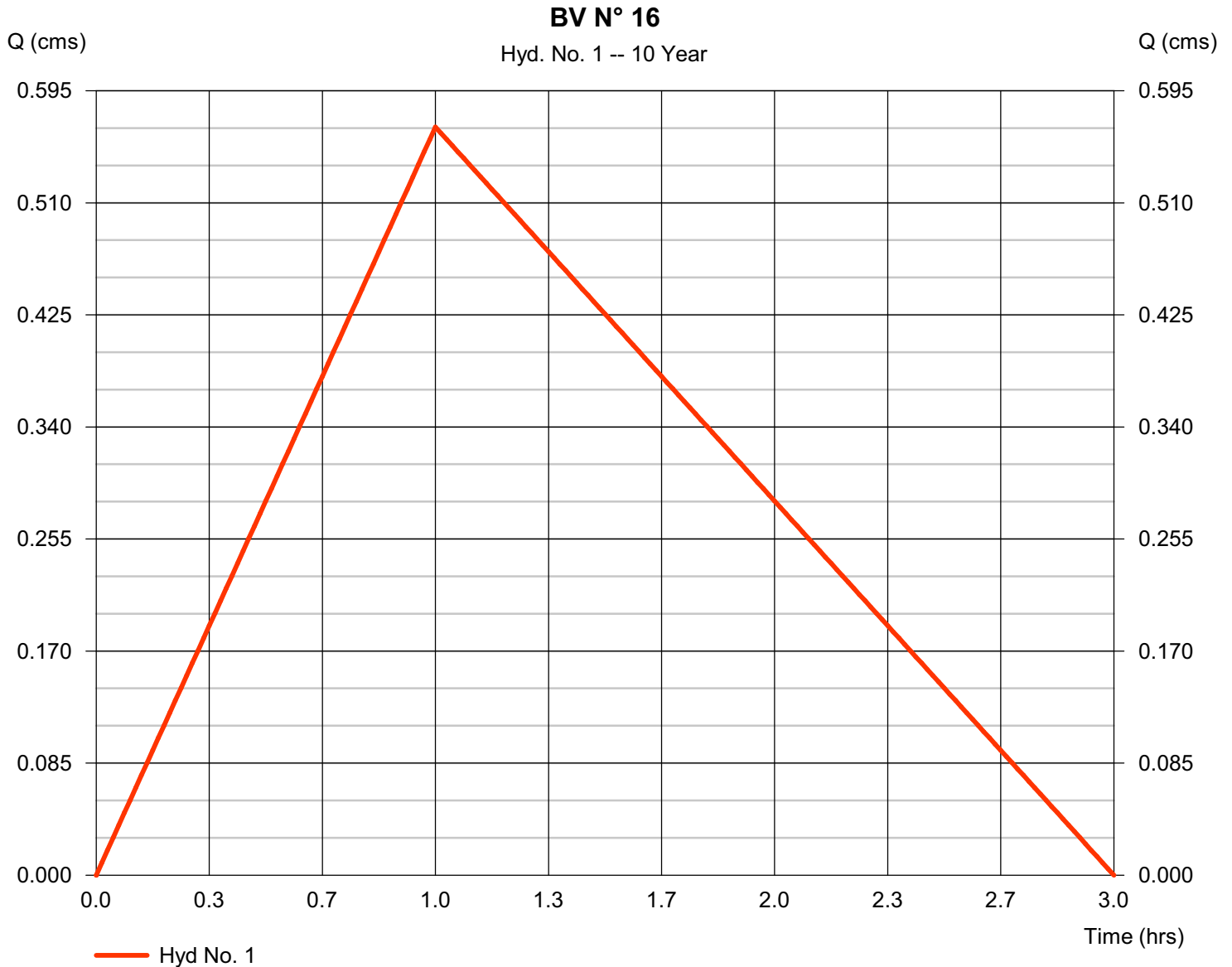
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vendredi, févr 5, 2010

## Hyd. No. 1

BV N° 16

Hydrograph type	= Rational	Peak discharge	= 0.568 cms
Storm frequency	= 10 yrs	Time to peak	= 1.00 hrs
Time interval	= 1 min	Hyd. volume	= 3 064.6 cum
Drainage area	= 53.900 hectare	Runoff coeff.	= 0.14
Intensity	= 27.300 mm/hr	Tc by User	= 60.00 min
IDF Curve	= IDF_ALSACE.IDF	Asc/Rec limb fact	= 1/2

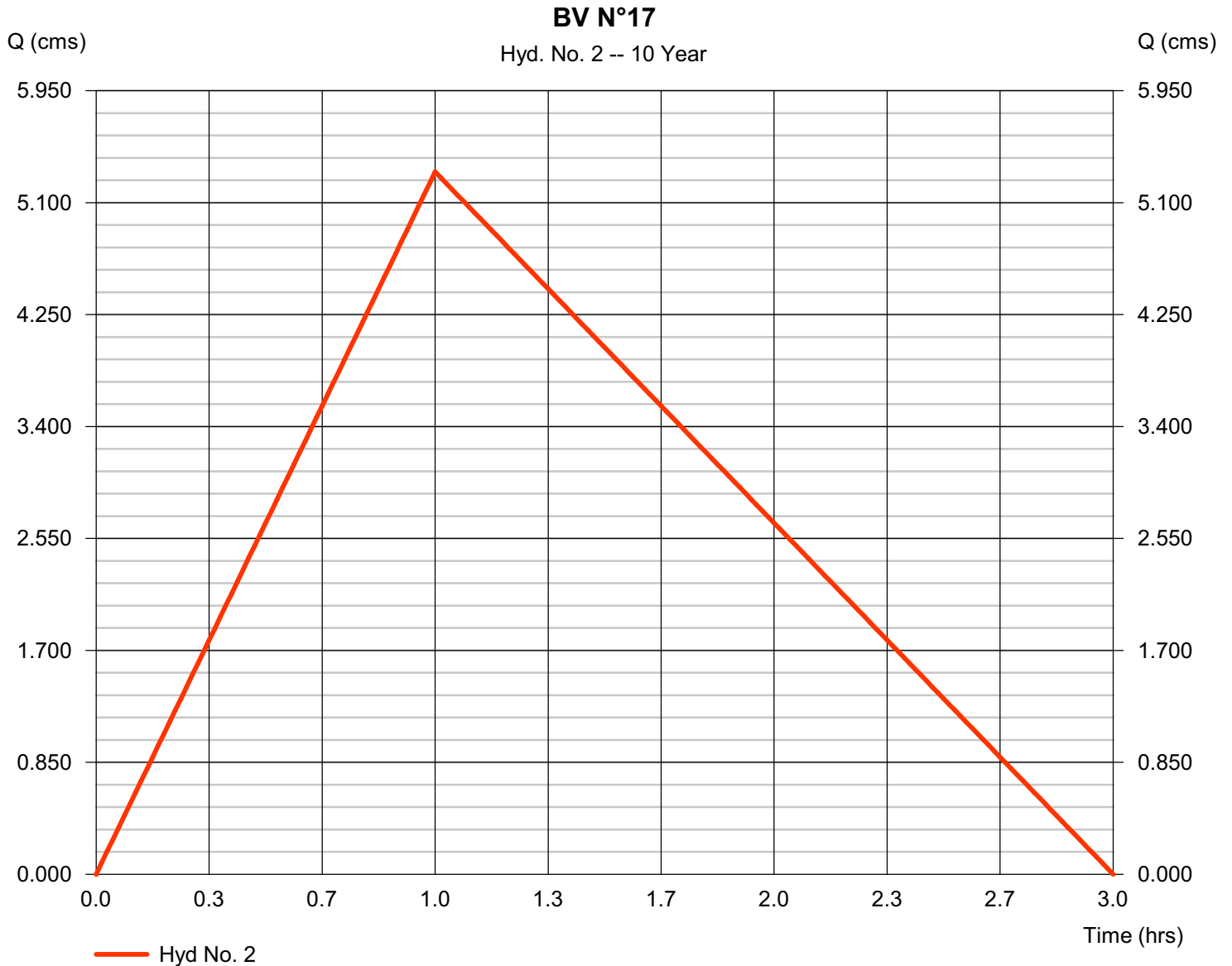


# Hydrograph Report

## Hyd. No. 2

BV N°17

Hydrograph type	= Rational	Peak discharge	= 5.334 cms
Storm frequency	= 10 yrs	Time to peak	= 1.00 hrs
Time interval	= 1 min	Hyd. volume	= 28 803.5 cum
Drainage area	= 417.200 hectare	Runoff coeff.	= 0.17
Intensity	= 27.300 mm/hr	Tc by User	= 60.00 min
IDF Curve	= IDF_ALSACE.IDF	Asc/Rec limb fact	= 1/2

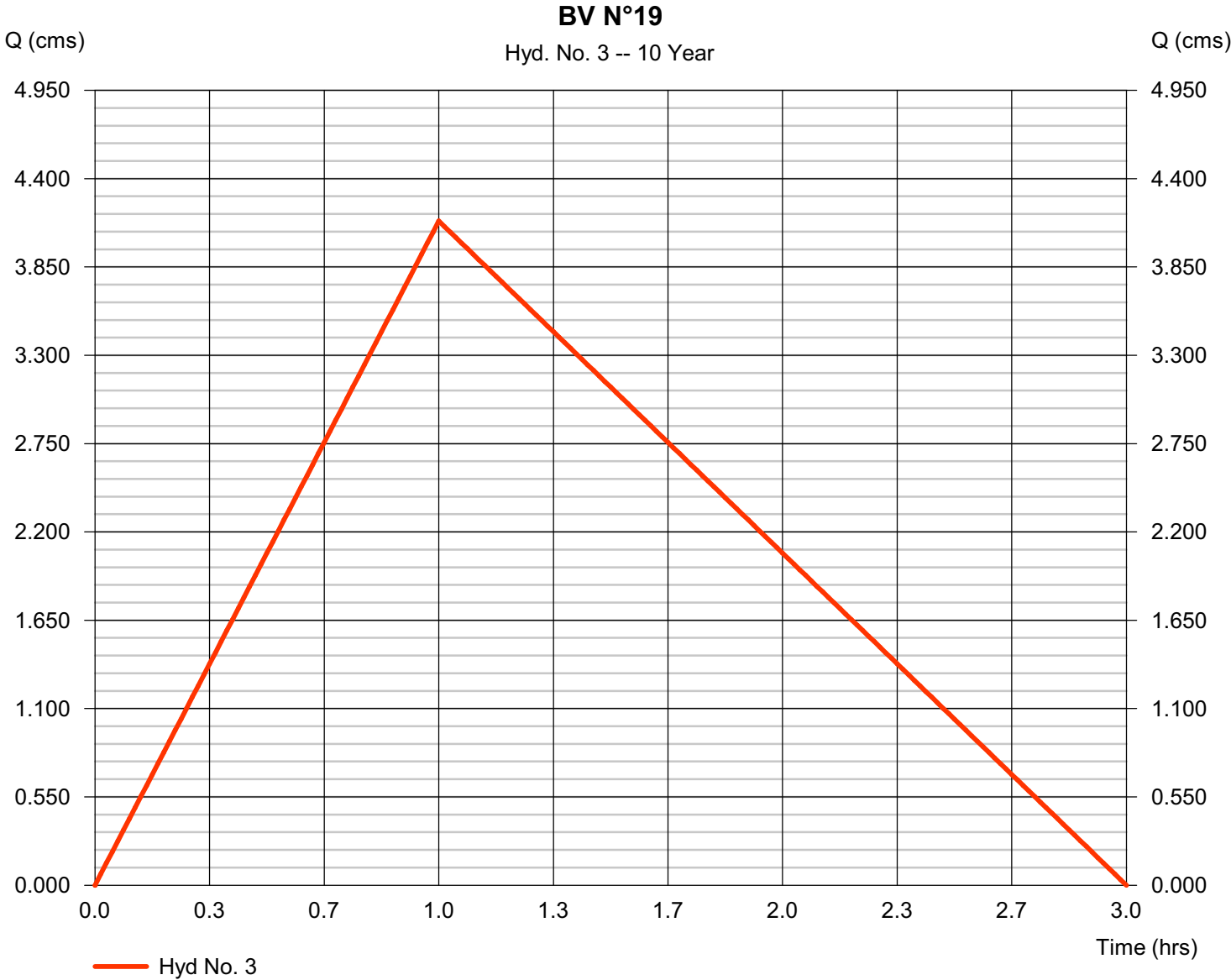


# Hydrograph Report

## Hyd. No. 3

BV N°19

Hydrograph type	= Rational	Peak discharge	= 4.136 cms
Storm frequency	= 10 yrs	Time to peak	= 1.00 hrs
Time interval	= 1 min	Hyd. volume	= 22 334.5 cum
Drainage area	= 323.500 hectare	Runoff coeff.	= 0.17
Intensity	= 27.300 mm/hr	Tc by User	= 60.00 min
IDF Curve	= IDF_ALSACE.IDF	Asc/Rec limb fact	= 1/2





# Hydrograph Report

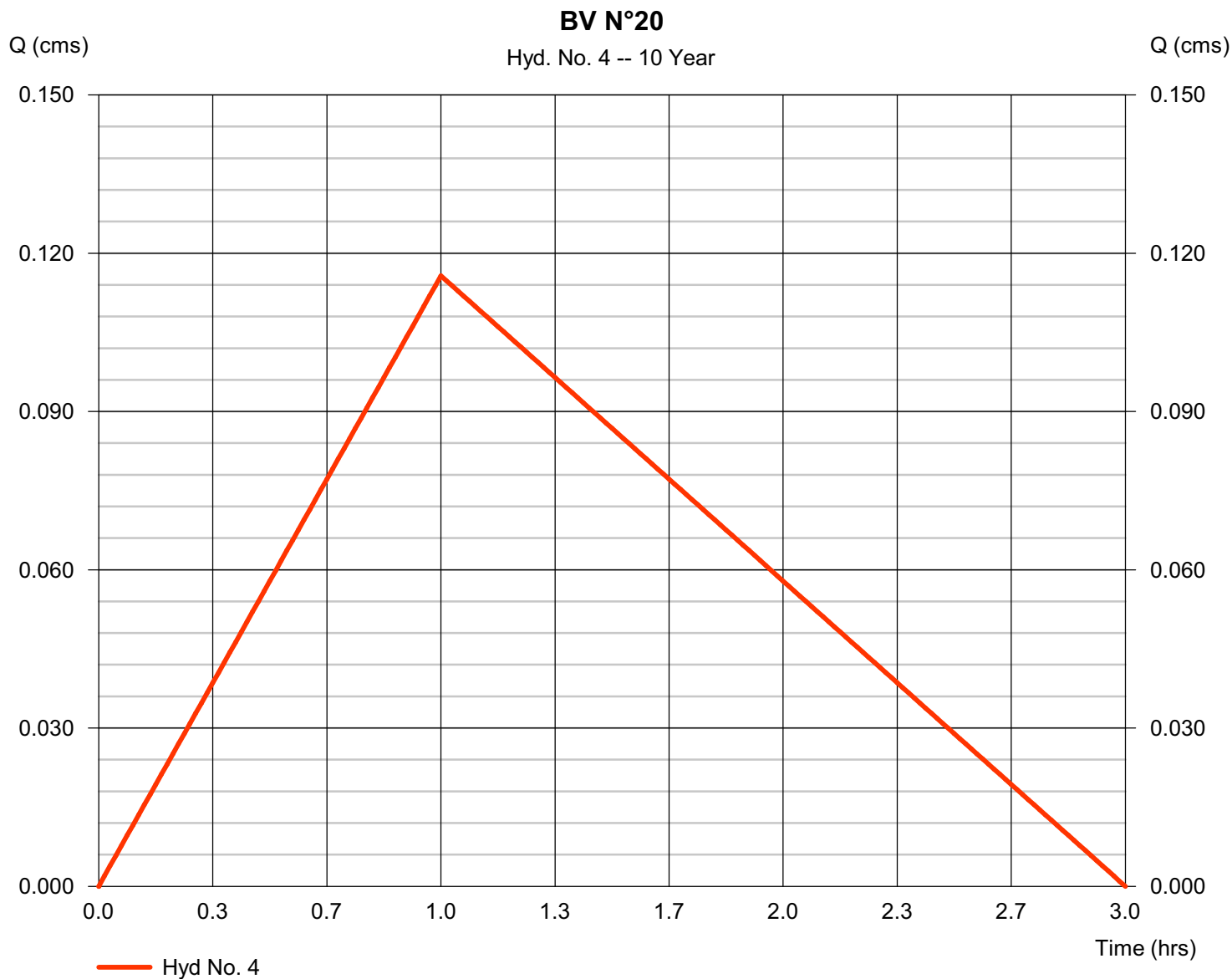
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## Hyd. No. 4

BV N°20

Hydrograph type	= Rational	Peak discharge	= 0.116 cms
Storm frequency	= 10 yrs	Time to peak	= 1.00 hrs
Time interval	= 1 min	Hyd. volume	= 625.0 cum
Drainage area	= 8.100 hectare	Runoff coeff.	= 0.19
Intensity	= 27.300 mm/hr	Tc by User	= 60.00 min
IDF Curve	= IDF_ALSACE.IDF	Asc/Rec limb fact	= 1/2



# Hydrograph Report

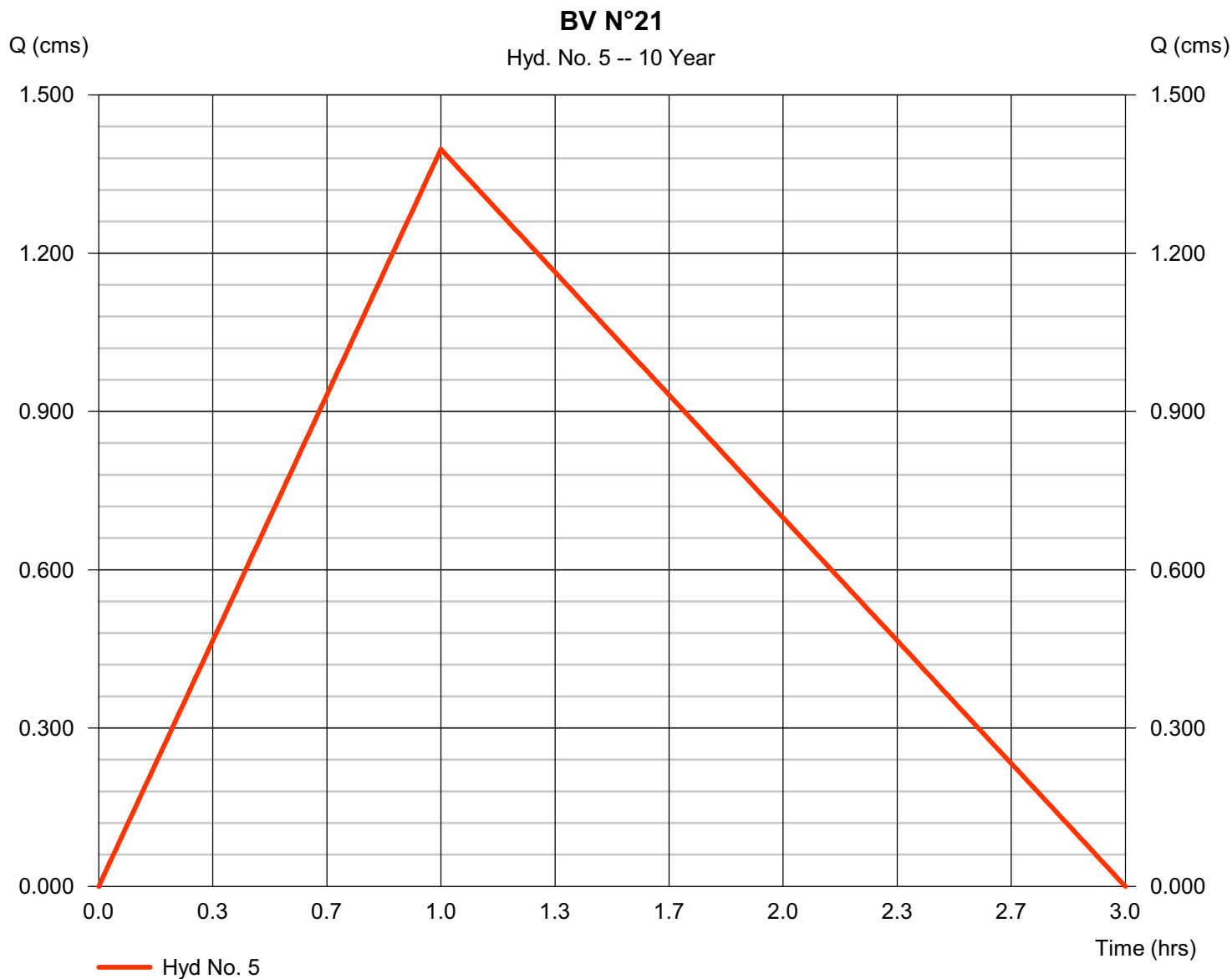
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## Hyd. No. 5

BV N°21

Hydrograph type	= Rational	Peak discharge	= 1.397 cms
Storm frequency	= 10 yrs	Time to peak	= 1.00 hrs
Time interval	= 1 min	Hyd. volume	= 7 544.0 cum
Drainage area	= 116.100 hectare	Runoff coeff.	= 0.16
Intensity	= 27.300 mm/hr	Tc by User	= 60.00 min
IDF Curve	= IDF_ALSACE.IDF	Asc/Rec limb fact	= 1/2



# Hydrograph Report

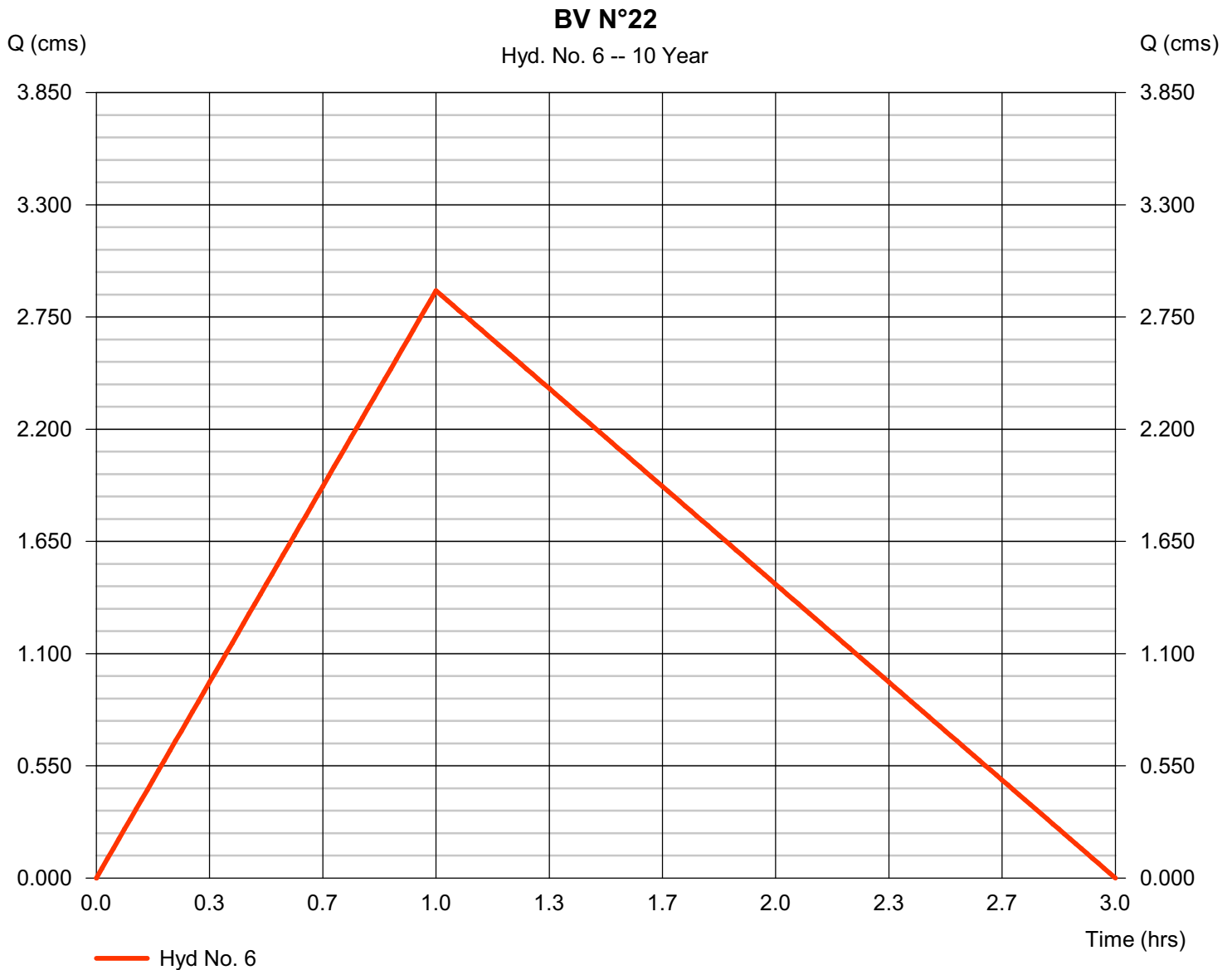
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## Hyd. No. 6

BV N°22

Hydrograph type	= Rational	Peak discharge	= 2.879 cms
Storm frequency	= 10 yrs	Time to peak	= 1.00 hrs
Time interval	= 1 min	Hyd. volume	= 15 548.2 cum
Drainage area	= 201.500 hectare	Runoff coeff.	= 0.19
Intensity	= 27.300 mm/hr	Tc by User	= 60.00 min
IDF Curve	= IDF_ALSACE.IDF	Asc/Rec limb fact	= 1/2



# Hydrograph Report

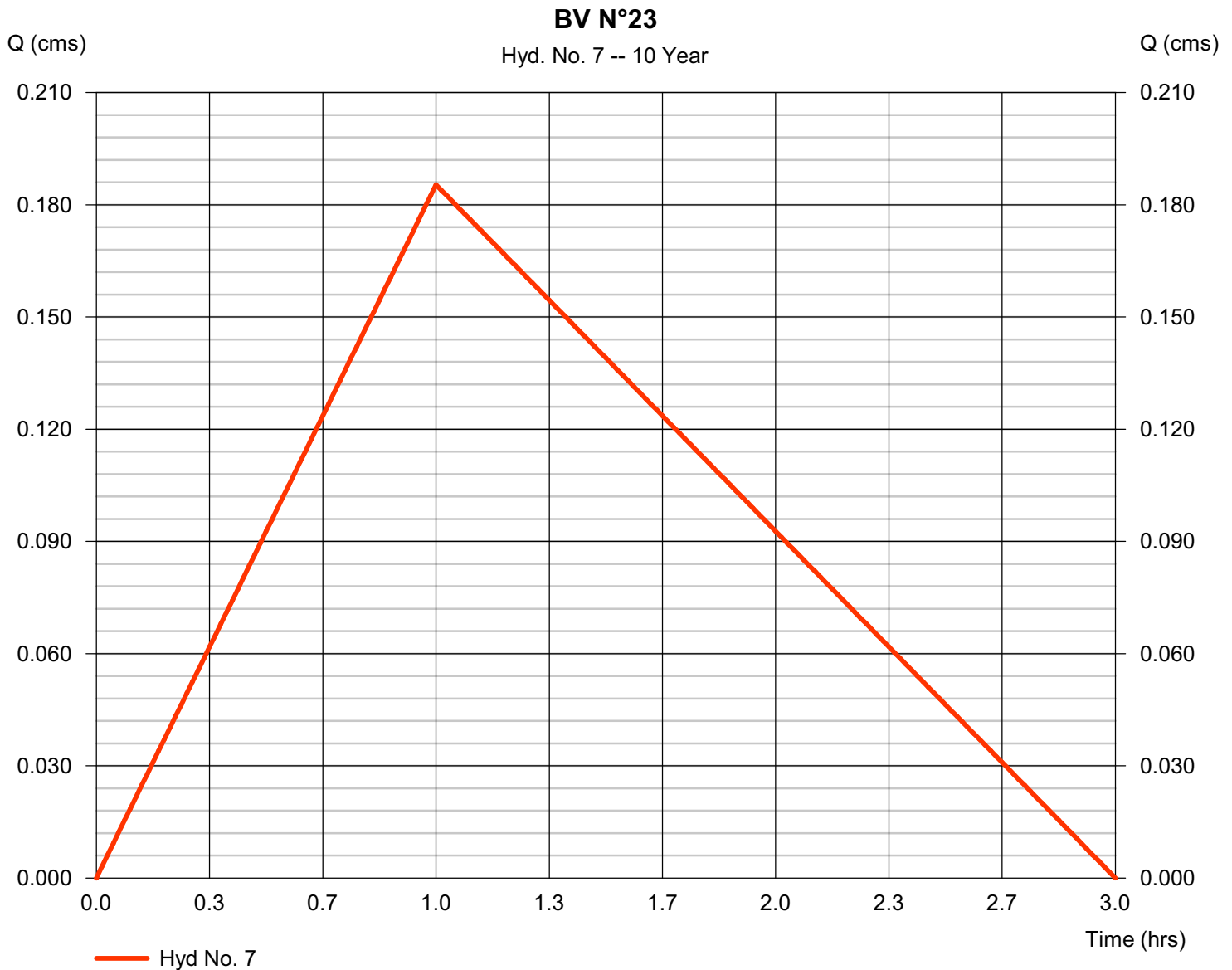
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## Hyd. No. 7

BV N°23

Hydrograph type	= Rational	Peak discharge	= 0.185 cms
Storm frequency	= 10 yrs	Time to peak	= 1.00 hrs
Time interval	= 1 min	Hyd. volume	= 1 001.1 cum
Drainage area	= 14.500 hectare	Runoff coeff.	= 0.17
Intensity	= 27.300 mm/hr	Tc by User	= 60.00 min
IDF Curve	= IDF_ALSACE.IDF	Asc/Rec limb fact	= 1/2



# Hydrograph Report

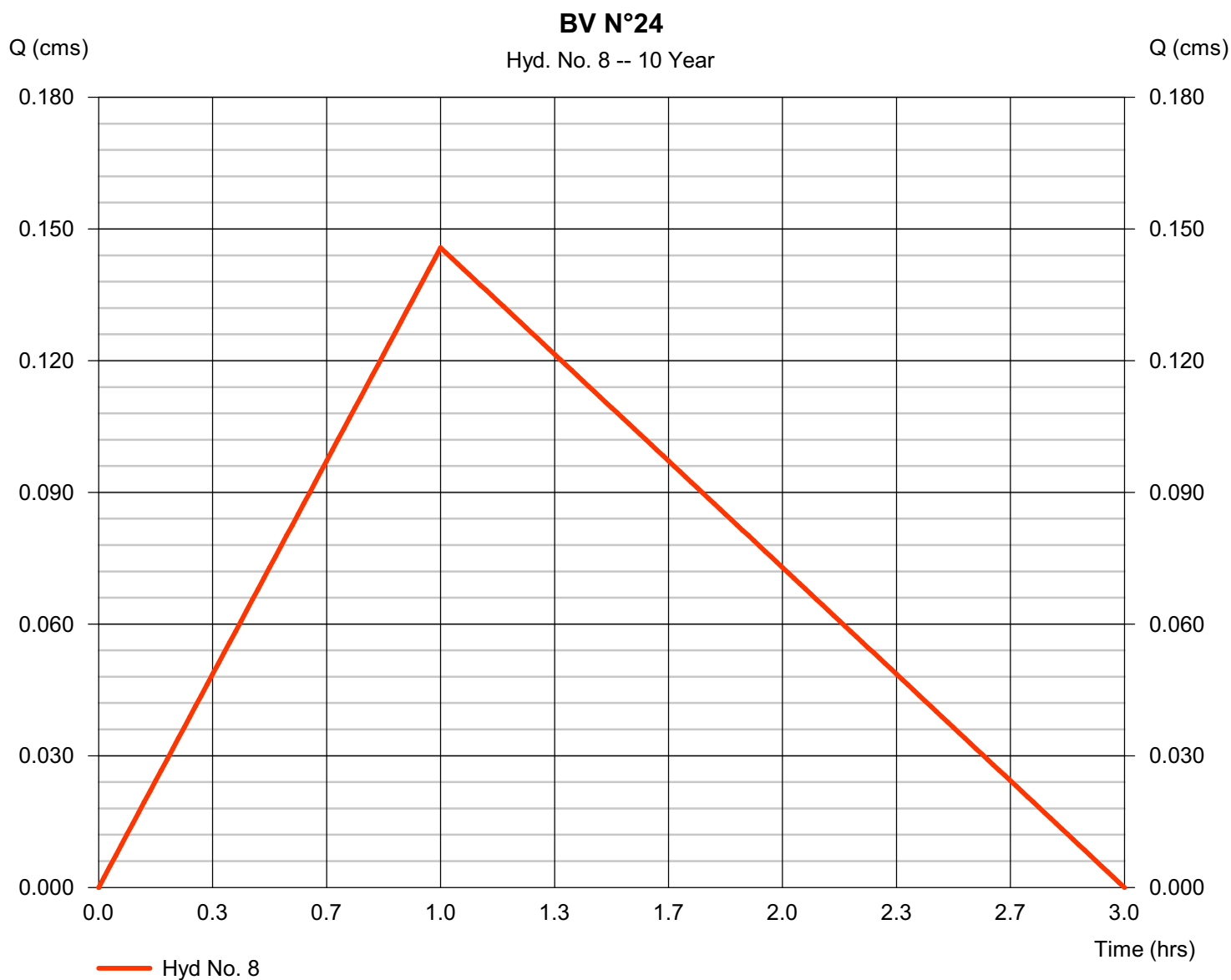
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vendredi, févr 5, 2010

## Hyd. No. 8

BV N°24

Hydrograph type	= Rational	Peak discharge	= 0.146 cms
Storm frequency	= 10 yrs	Time to peak	= 1.00 hrs
Time interval	= 1 min	Hyd. volume	= 787.1 cum
Drainage area	= 10.200 hectare	Runoff coeff.	= 0.19
Intensity	= 27.300 mm/hr	Tc by User	= 60.00 min
IDF Curve	= IDF_ALSACE.IDF	Asc/Rec limb fact	= 1/2



# Hydrograph Report

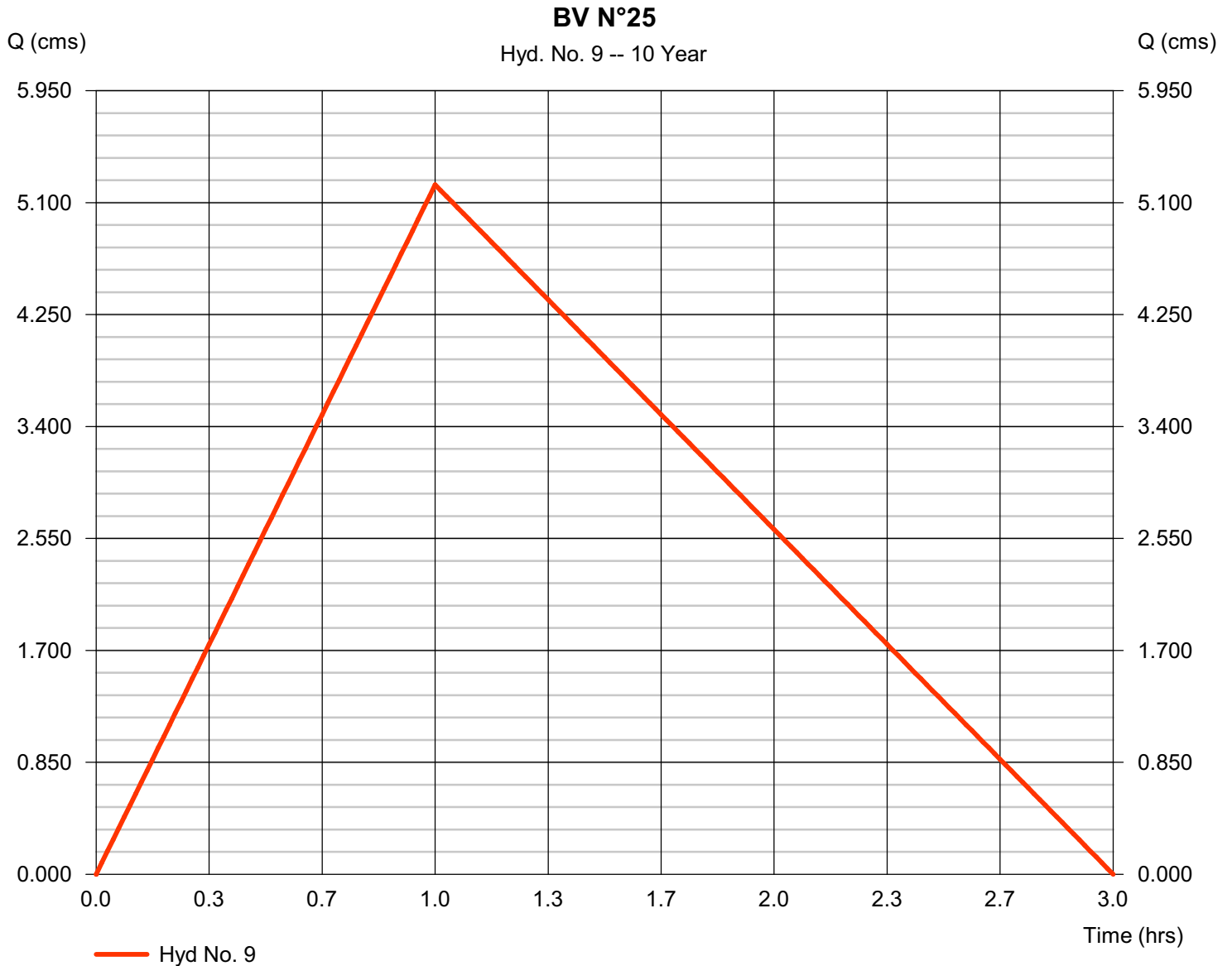
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## Hyd. No. 9

BV N°25

Hydrograph type	= Rational	Peak discharge	= 5.236 cms
Storm frequency	= 10 yrs	Time to peak	= 1.00 hrs
Time interval	= 1 min	Hyd. volume	= 28 271.9 cum
Drainage area	= 409.500 hectare	Runoff coeff.	= 0.17
Intensity	= 27.300 mm/hr	Tc by User	= 60.00 min
IDF Curve	= IDF_ALSACE.IDF	Asc/Rec limb fact	= 1/2



# Hydrograph Report

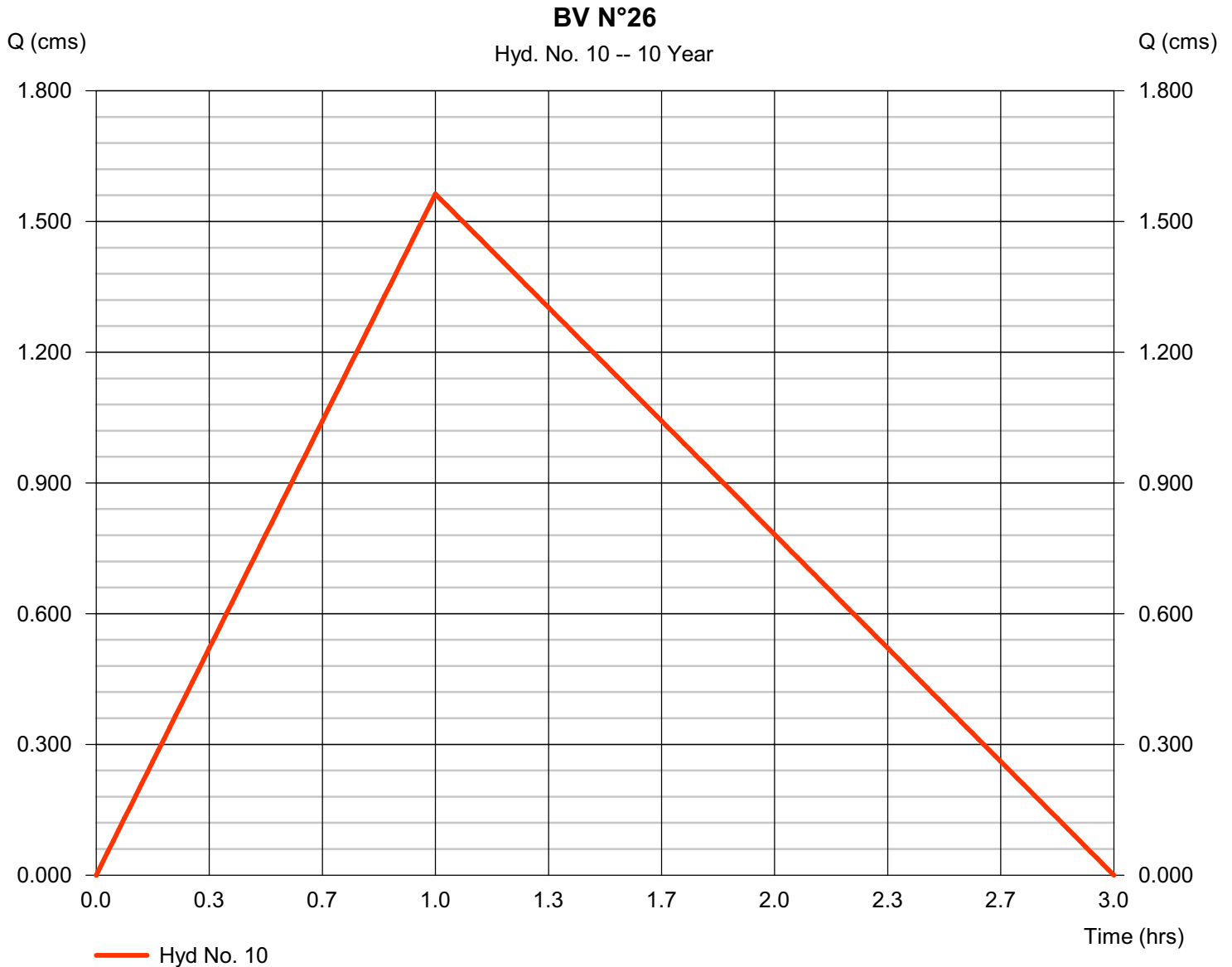
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## Hyd. No. 10

BV N°26

Hydrograph type	= Rational	Peak discharge	= 1.563 cms
Storm frequency	= 10 yrs	Time to peak	= 1.00 hrs
Time interval	= 1 min	Hyd. volume	= 8 441.6 cum
Drainage area	= 109.400 hectare	Runoff coeff.	= 0.19
Intensity	= 27.300 mm/hr	Tc by User	= 60.00 min
IDF Curve	= IDF_ALSACE.IDF	Asc/Rec limb fact	= 1/2



# Hydrograph Report

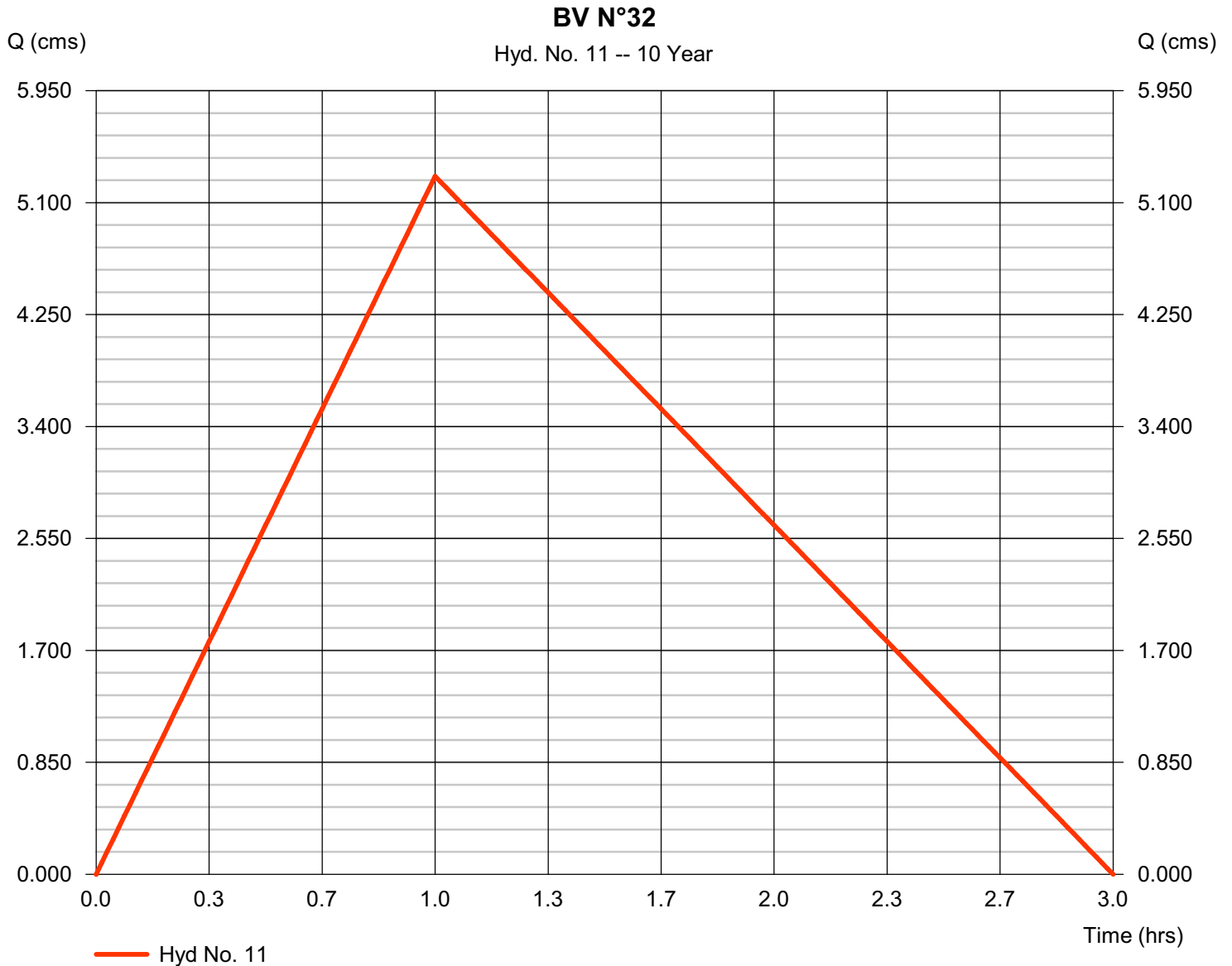
Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2010 by Autodesk, Inc. v9.25

vendredi, févr 5, 2010

## Hyd. No. 11

BV N°32

Hydrograph type	= Rational	Peak discharge	= 5.300 cms
Storm frequency	= 10 yrs	Time to peak	= 1.00 hrs
Time interval	= 1 min	Hyd. volume	= 28 619.1 cum
Drainage area	= 469.800 hectare	Runoff coeff.	= 0.15
Intensity	= 27.300 mm/hr	Tc by User	= 60.00 min
IDF Curve	= IDF_ALSACE.IDF	Asc/Rec limb fact	= 1/2





# Hydrograph Report

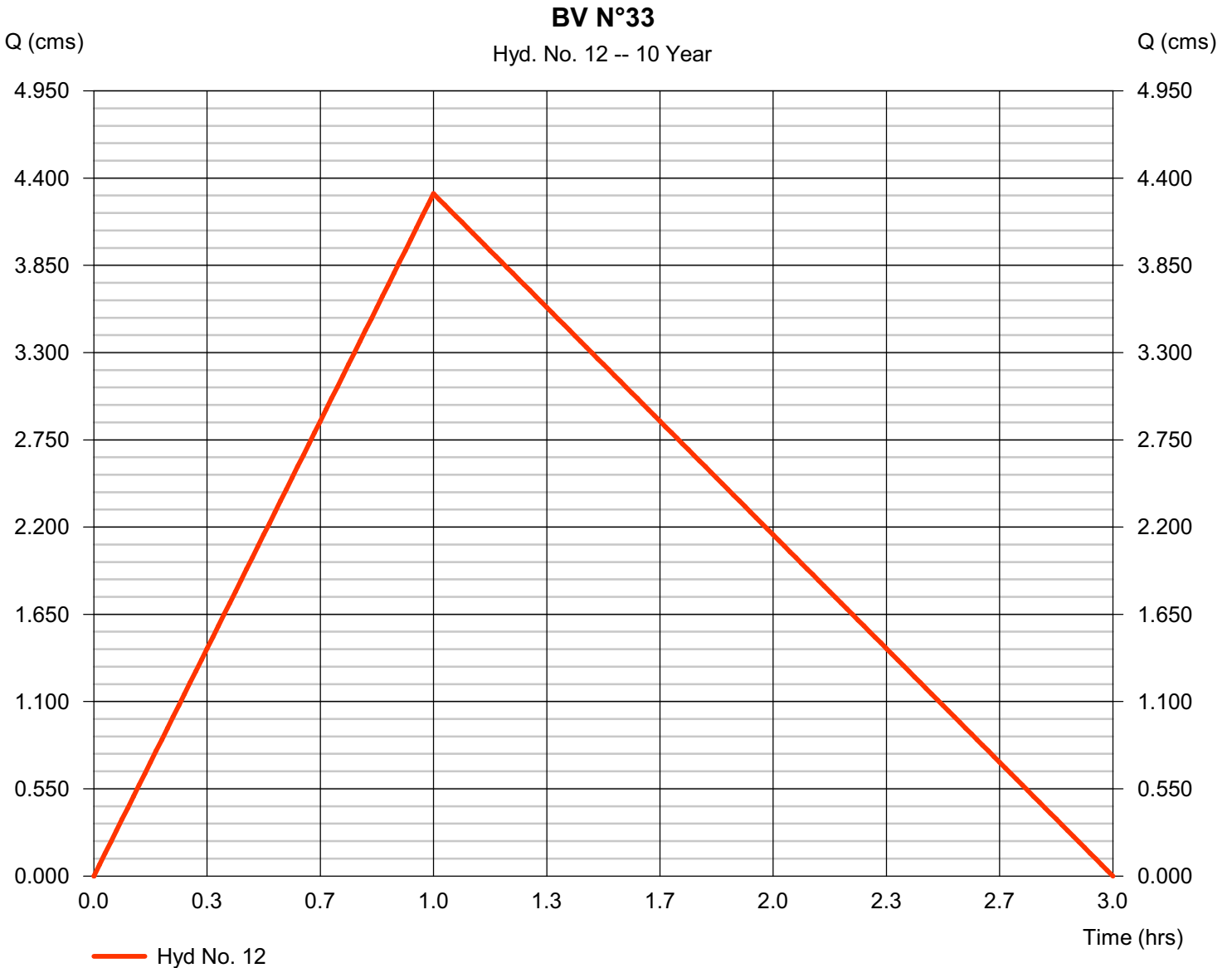
Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2010 by Autodesk, Inc. v9.25

vendredi, févr 5, 2010

## Hyd. No. 12

BV N°33

Hydrograph type	= Rational	Peak discharge	= 4.302 cms
Storm frequency	= 10 yrs	Time to peak	= 1.00 hrs
Time interval	= 1 min	Hyd. volume	= 23 230.0 cum
Drainage area	= 357.500 hectare	Runoff coeff.	= 0.16
Intensity	= 27.300 mm/hr	Tc by User	= 60.00 min
IDF Curve	= IDF_ALSACE.IDF	Asc/Rec limb fact	= 1/2



# Hydrograph Report

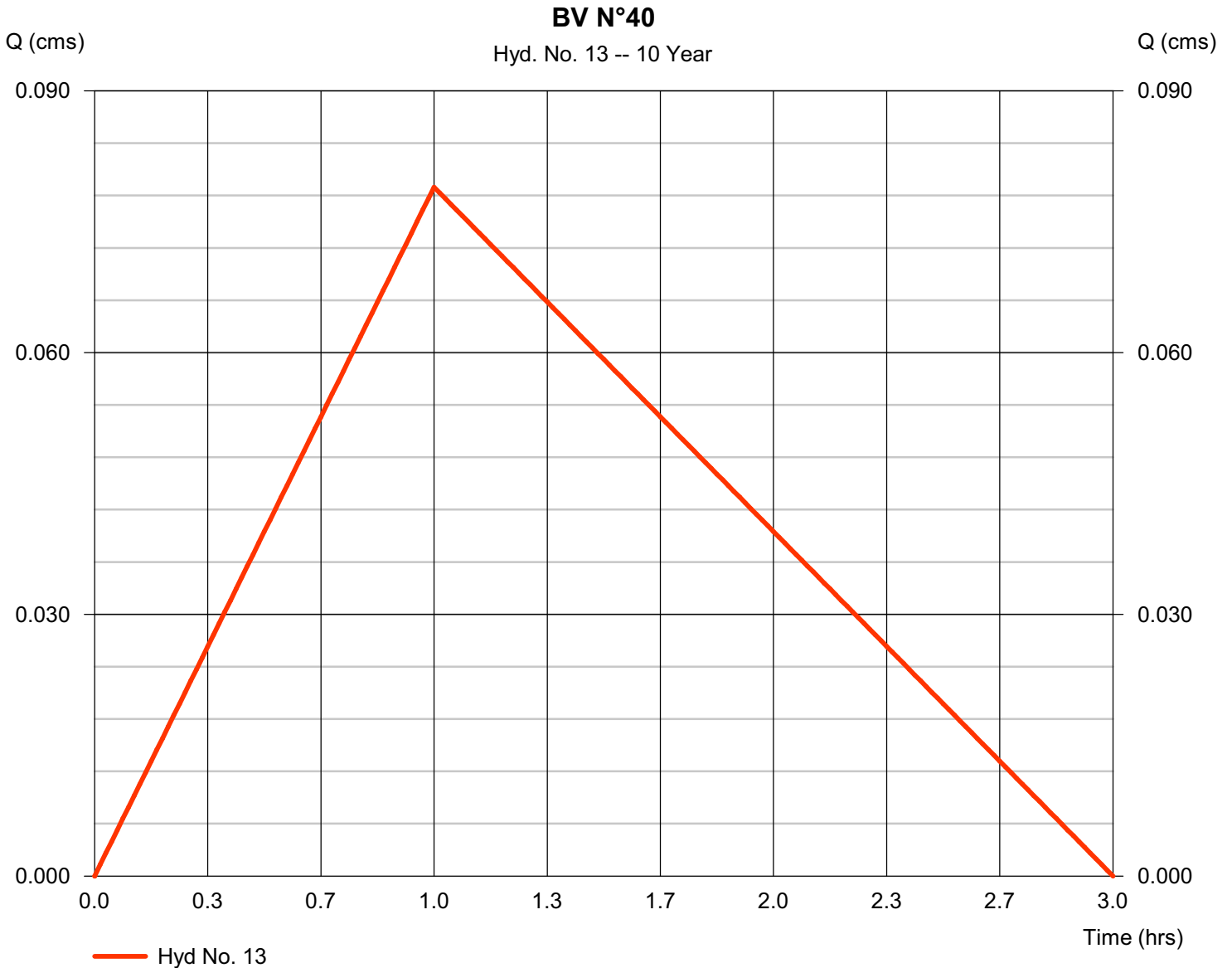
Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2010 by Autodesk, Inc. v9.25

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## Hyd. No. 13

BV N°40

Hydrograph type	= Rational	Peak discharge	= 0.079 cms
Storm frequency	= 10 yrs	Time to peak	= 1.00 hrs
Time interval	= 1 min	Hyd. volume	= 426.4 cum
Drainage area	= 10.500 hectare	Runoff coeff.	= 0.1
Intensity	= 27.300 mm/hr	Tc by User	= 60.00 min
IDF Curve	= IDF_ALSACE.IDF	Asc/Rec limb fact	= 1/2



# Hydrograph Report

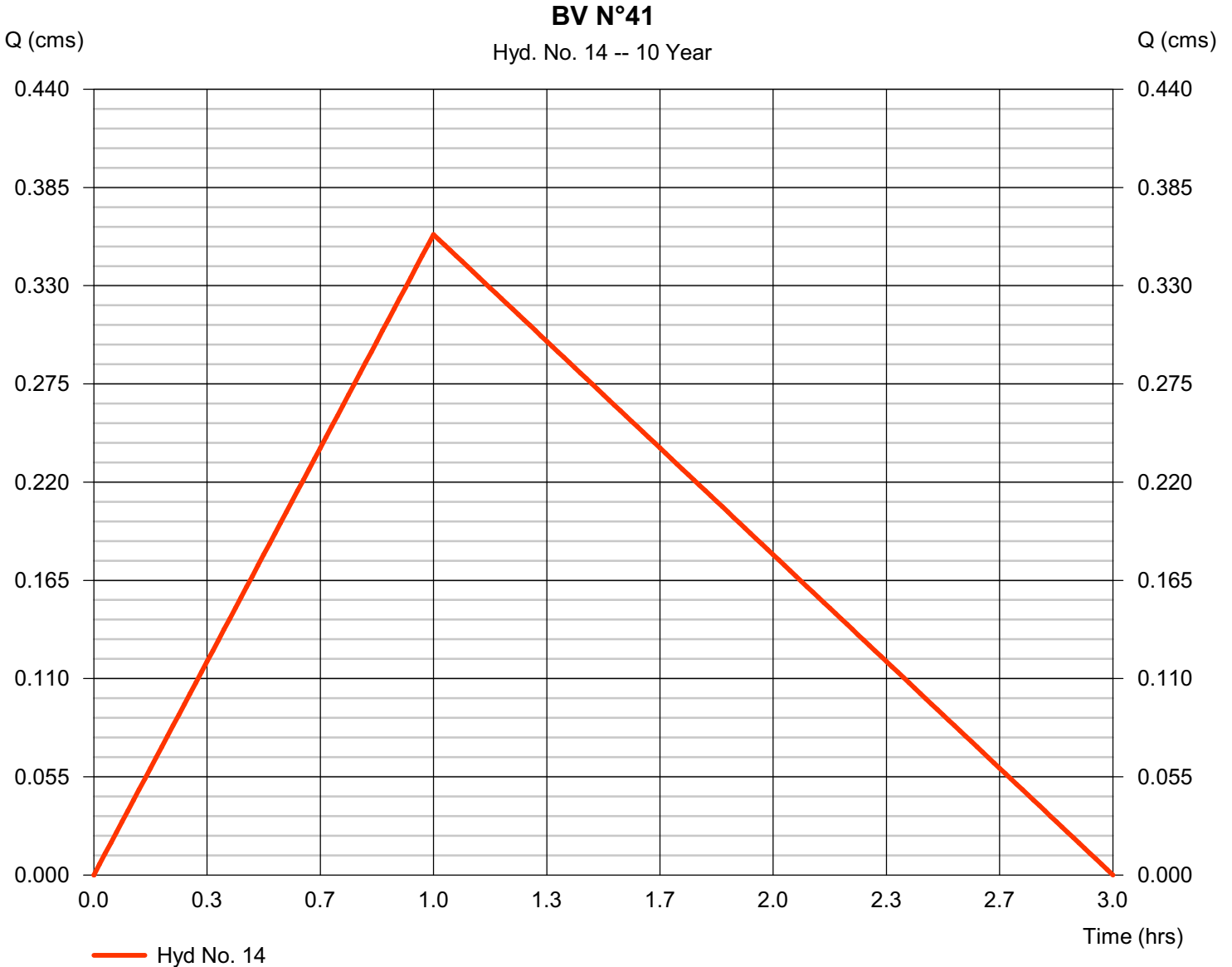
Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2010 by Autodesk, Inc. v9.25

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## Hyd. No. 14

BV N°41

Hydrograph type	= Rational	Peak discharge	= 0.359 cms
Storm frequency	= 10 yrs	Time to peak	= 1.00 hrs
Time interval	= 1 min	Hyd. volume	= 1 936.8 cum
Drainage area	= 25.100 hectare	Runoff coeff.	= 0.19
Intensity	= 27.300 mm/hr	Tc by User	= 60.00 min
IDF Curve	= IDF_ALSACE.IDF	Asc/Rec limb fact	= 1/2



# Hydrograph Report

Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2010 by Autodesk, Inc. v9.25

vendredi, févr 5, 2010

## Hyd. No. 15

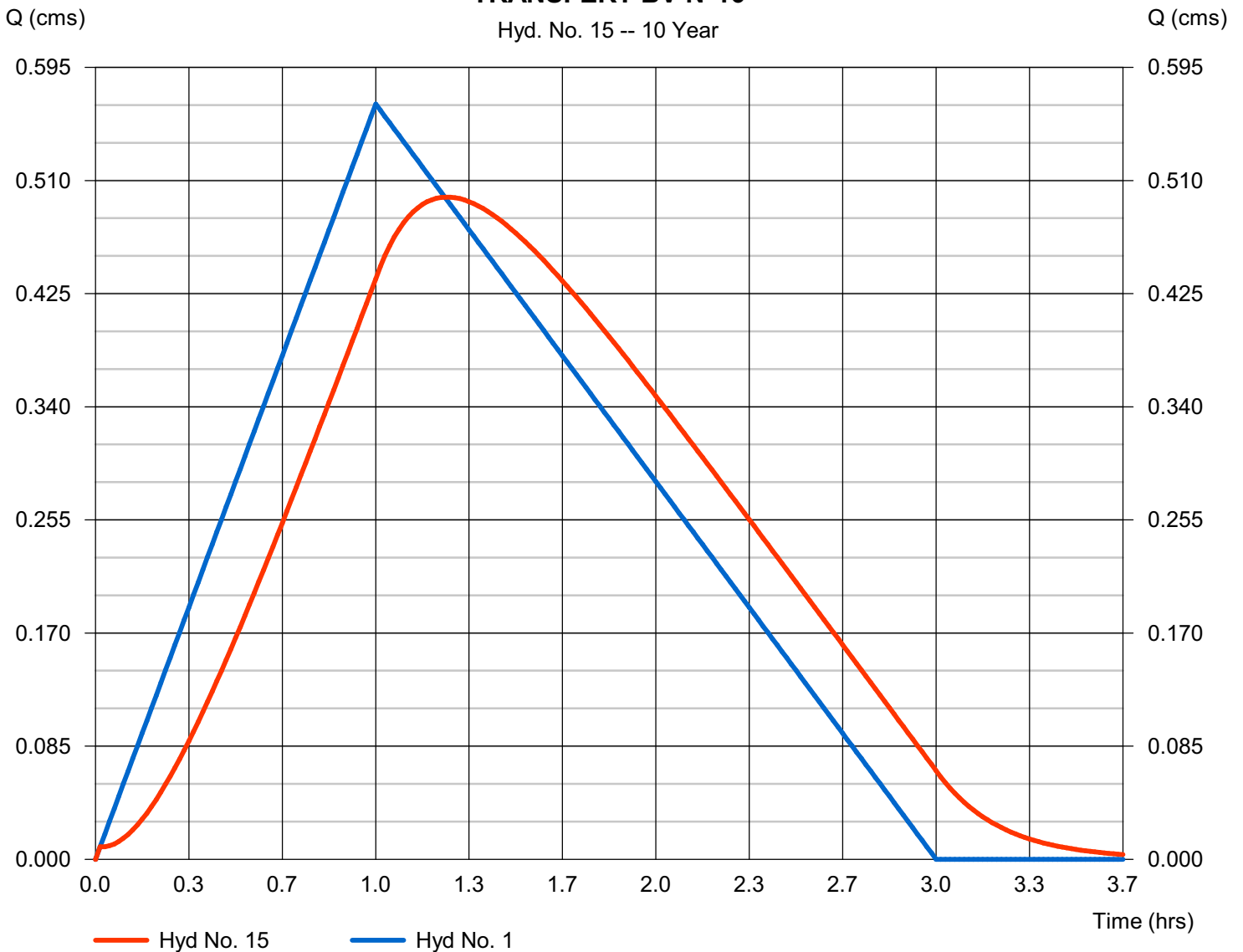
TRANSFERT BV N°16

Hydrograph type	= Reach	Peak discharge	= 0.498 cms
Storm frequency	= 10 yrs	Time to peak	= 1.25 hrs
Time interval	= 1 min	Hyd. volume	= 3 072.3 cum
Inflow hyd. No.	= 1 - BV N° 16	Section type	= Rectangular
Reach length	= 1516.0 m	Channel slope	= 1.7 %
Manning's n	= 0.025	Bottom width	= 2.0 m
Side slope	= 0.0:1	Max. depth	= 4.0 m
Rating curve x	= 2.216	Rating curve m	= 1.426
Ave. velocity	= 1.30 m/s	Routing coeff.	= 0.0710

Modified Att-Kin routing method used.

### TRANSFERT BV N°16

Hyd. No. 15 -- 10 Year



# Hydrograph Report

Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2010 by Autodesk, Inc. v9.25

vendredi, févr 5, 2010

## Hyd. No. 16

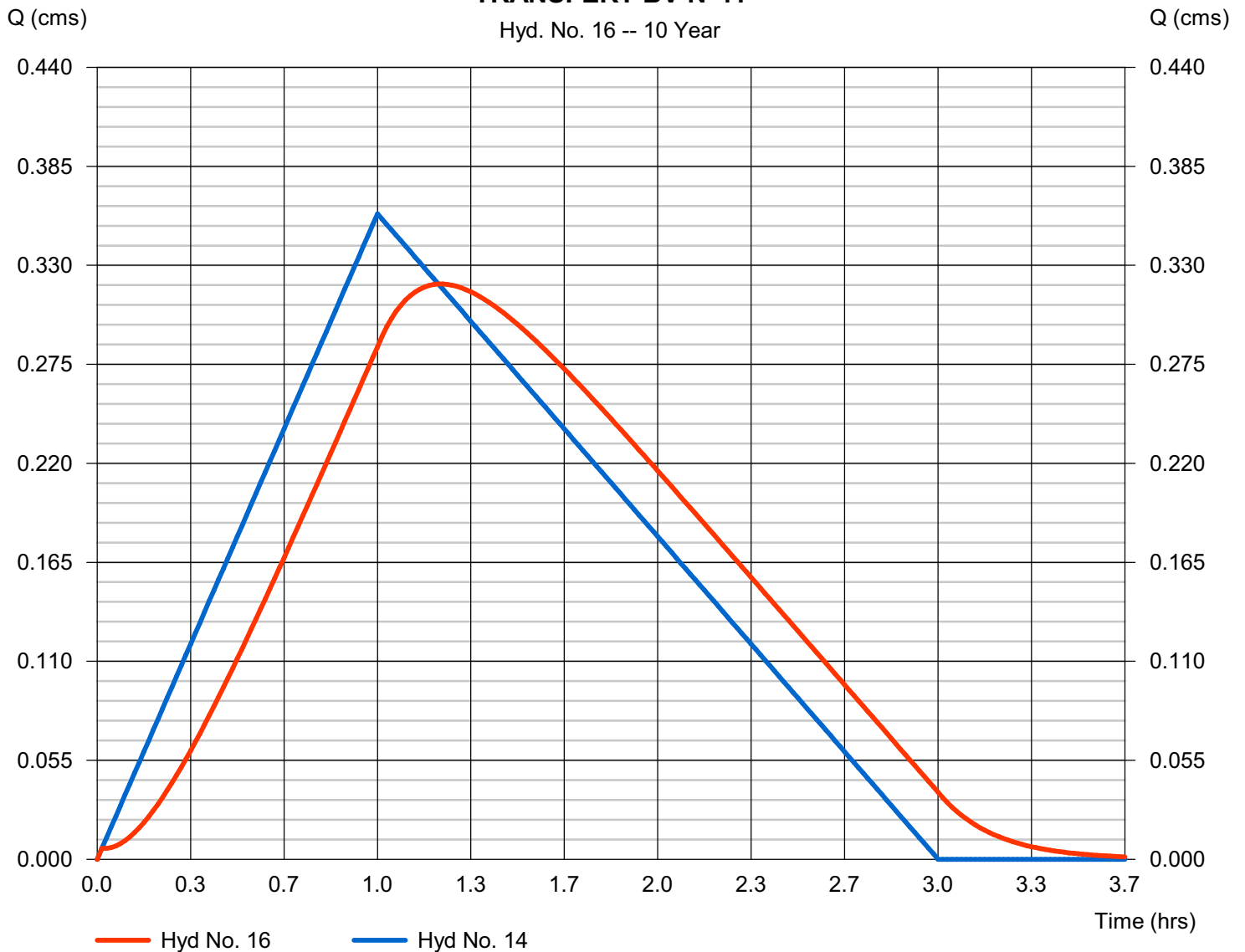
### TRANSFERT BV N°41

Hydrograph type	= Reach	Peak discharge	= 0.320 cms
Storm frequency	= 10 yrs	Time to peak	= 1.23 hrs
Time interval	= 1 min	Hyd. volume	= 1 941.0 cum
Inflow hyd. No.	= 14 - BV N°41	Section type	= Rectangular
Reach length	= 1419.0 m	Channel slope	= 3.0 %
Manning's n	= 0.025	Bottom width	= 2.0 m
Side slope	= 0.0:1	Max. depth	= 4.0 m
Rating curve x	= 2.943	Rating curve m	= 1.426
Ave. velocity	= 1.39 m/s	Routing coeff.	= 0.0803

Modified Att-Kin routing method used.

### TRANSFERT BV N°41

Hyd. No. 16 -- 10 Year



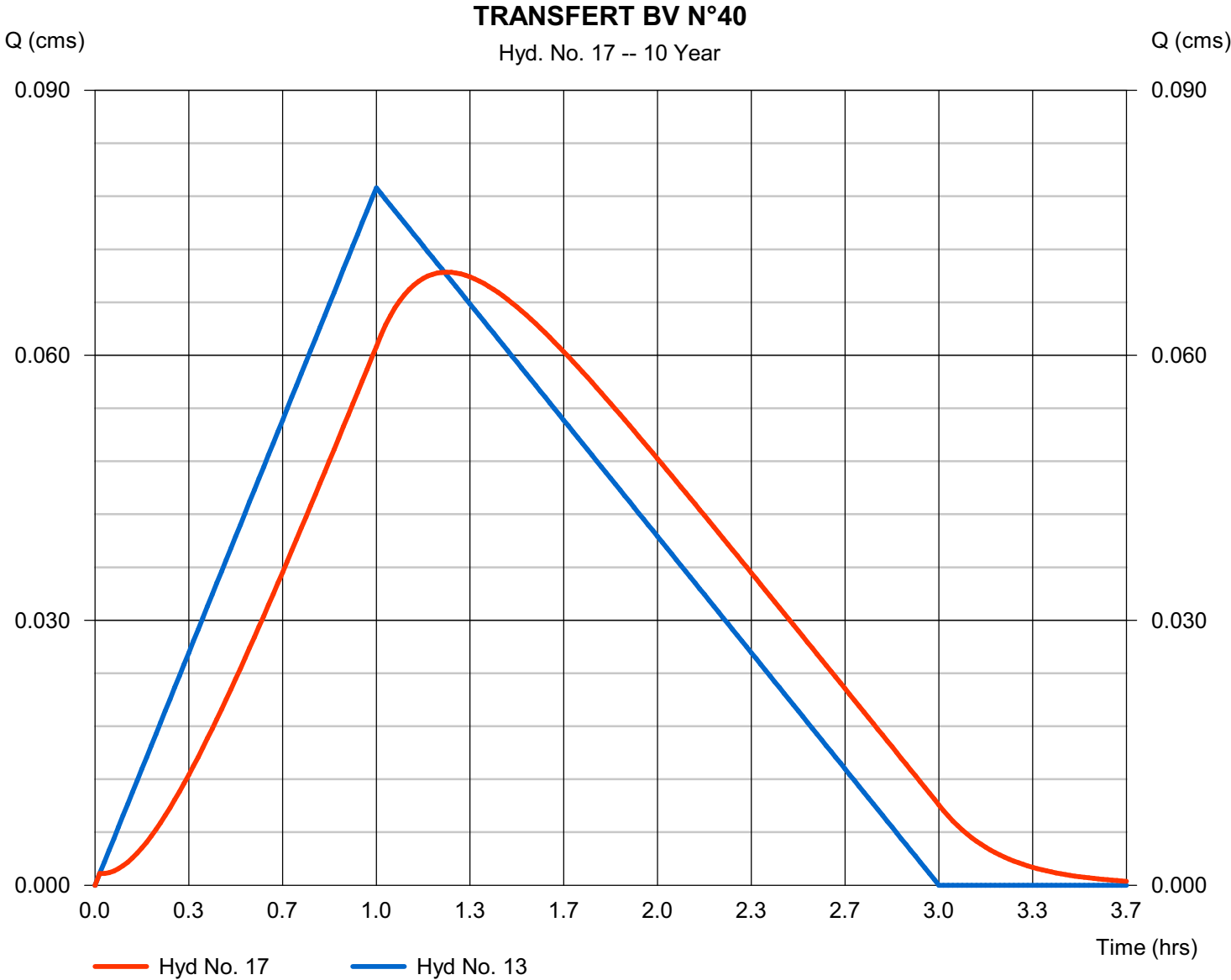
# Hydrograph Report

## Hyd. No. 17

### TRANSFERT BV N°40

Hydrograph type	= Reach	Peak discharge	= 0.069 cms
Storm frequency	= 10 yrs	Time to peak	= 1.25 hrs
Time interval	= 1 min	Hyd. volume	= 427.3 cum
Inflow hyd. No.	= 13 - BV N°40	Section type	= Rectangular
Reach length	= 1104.0 m	Channel slope	= 3.9 %
Manning's n	= 0.025	Bottom width	= 2.0 m
Side slope	= 0.0:1	Max. depth	= 4.0 m
Rating curve x	= 3.356	Rating curve m	= 1.426
Ave. velocity	= 0.97 m/s	Routing coeff.	= 0.0723

Modified Att-Kin routing method used.



# Hydrograph Report

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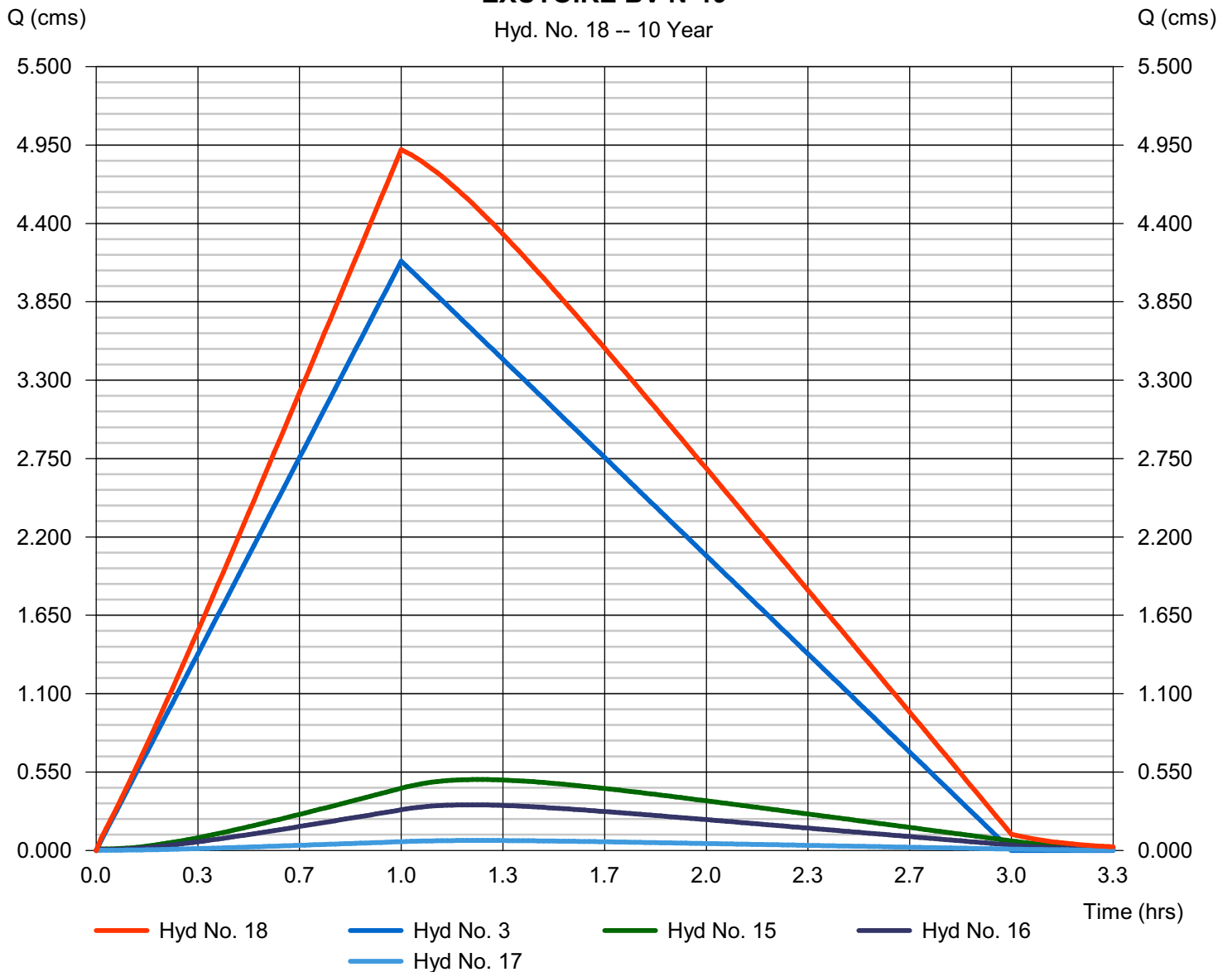
## Hyd. No. 18

EXUTOIRE BV N°19

Hydrograph type	= Combine	Peak discharge	= 4.918 cms
Storm frequency	= 10 yrs	Time to peak	= 1.00 hrs
Time interval	= 1 min	Hyd. volume	= 27 775.1 cum
Inflow hyds.	= 3, 15, 16, 17	Contrib. drain. area	= 323.500 hectare

### EXUTOIRE BV N°19

Hyd. No. 18 -- 10 Year



# Hydrograph Report

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vendredi, févr 5, 2010

## Hyd. No. 19

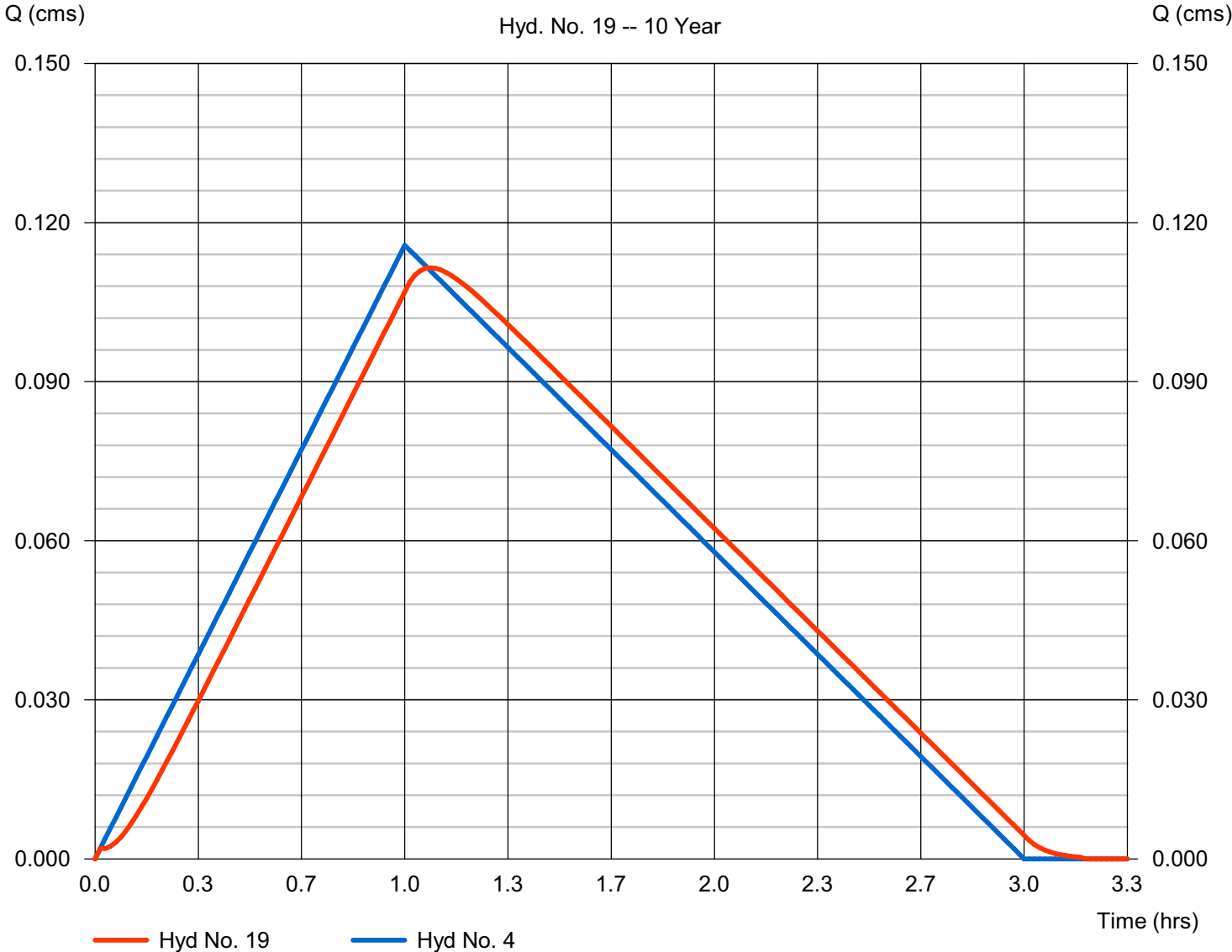
### TRANSFERT BV N°20

Hydrograph type	= Reach	Peak discharge	= 0.111 cms
Storm frequency	= 10 yrs	Time to peak	= 1.08 hrs
Time interval	= 1 min	Hyd. volume	= 625.5 cum
Inflow hyd. No.	= 4 - BV N°20	Section type	= Rectangular
Reach length	= 427.0 m	Channel slope	= 1.4 %
Manning's n	= 0.011	Bottom width	= 3.5 m
Side slope	= 0.0:1	Max. depth	= 0.1 m
Rating curve x	= 3.146	Rating curve m	= 1.639
Ave. velocity	= 1.06 m/s	Routing coeff.	= 0.2179

Modified Att-Kin routing method used.

### TRANSFERT BV N°20

Hyd. No. 19 -- 10 Year





# Hydrograph Report

Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2010 by Autodesk, Inc. v9.25

vendredi, févr 5, 2010

## Hyd. No. 20

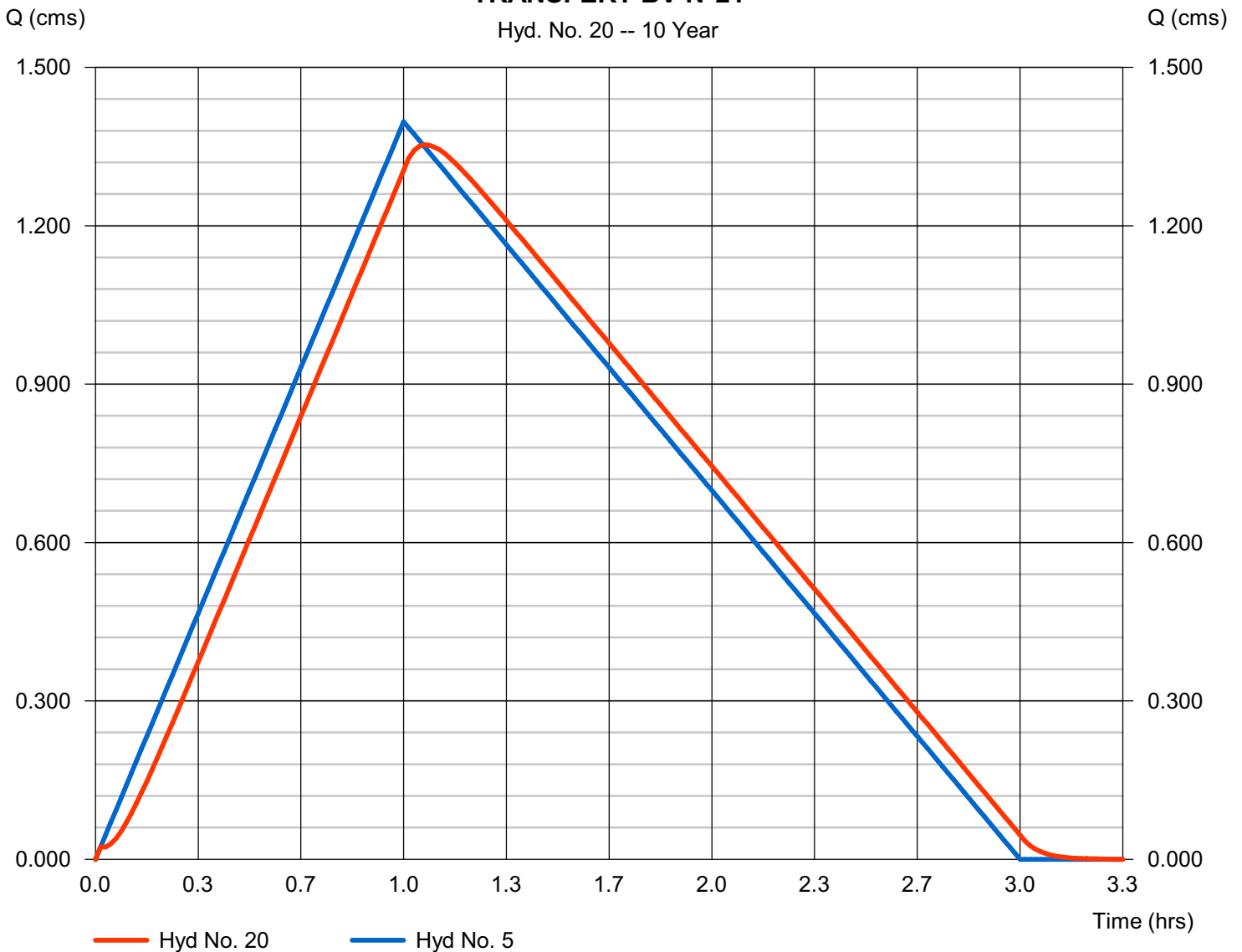
TRANSFERT BV N°21

Hydrograph type	= Reach	Peak discharge	= 1.353 cms
Storm frequency	= 10 yrs	Time to peak	= 1.07 hrs
Time interval	= 1 min	Hyd. volume	= 7 549.5 cum
Inflow hyd. No.	= 5 - BV N°21	Section type	= Rectangular
Reach length	= 460.0 m	Channel slope	= 1.3 %
Manning's n	= 0.025	Bottom width	= 2.0 m
Side slope	= 0.0:1	Max. depth	= 4.0 m
Rating curve x	= 1.938	Rating curve m	= 1.426
Ave. velocity	= 1.55 m/s	Routing coeff.	= 0.2525

Modified Att-Kin routing method used.

### TRANSFERT BV N°21

Hyd. No. 20 -- 10 Year



# Hydrograph Report

Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2010 by Autodesk, Inc. v9.25

vendredi, févr 5, 2010

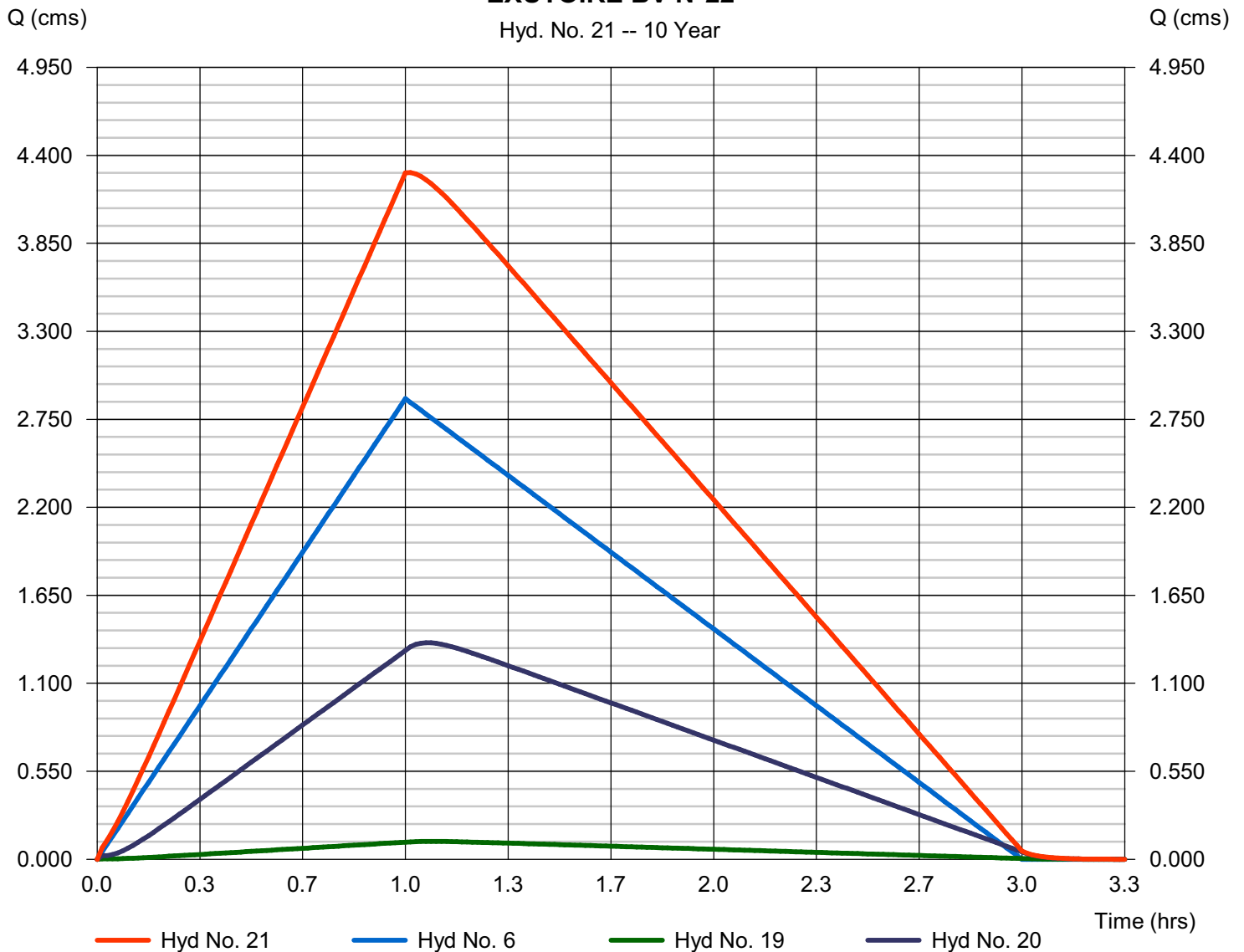
## Hyd. No. 21

EXUTOIRE BV N°22

Hydrograph type	= Combine	Peak discharge	= 4.292 cms
Storm frequency	= 10 yrs	Time to peak	= 1.02 hrs
Time interval	= 1 min	Hyd. volume	= 23 723.2 cum
Inflow hyds.	= 6, 19, 20	Contrib. drain. area	= 201.500 hectare

### EXUTOIRE BV N°22

Hyd. No. 21 -- 10 Year



# Hydrograph Report

Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2010 by Autodesk, Inc. v9.25

vendredi, févr 5, 2010

## Hyd. No. 22

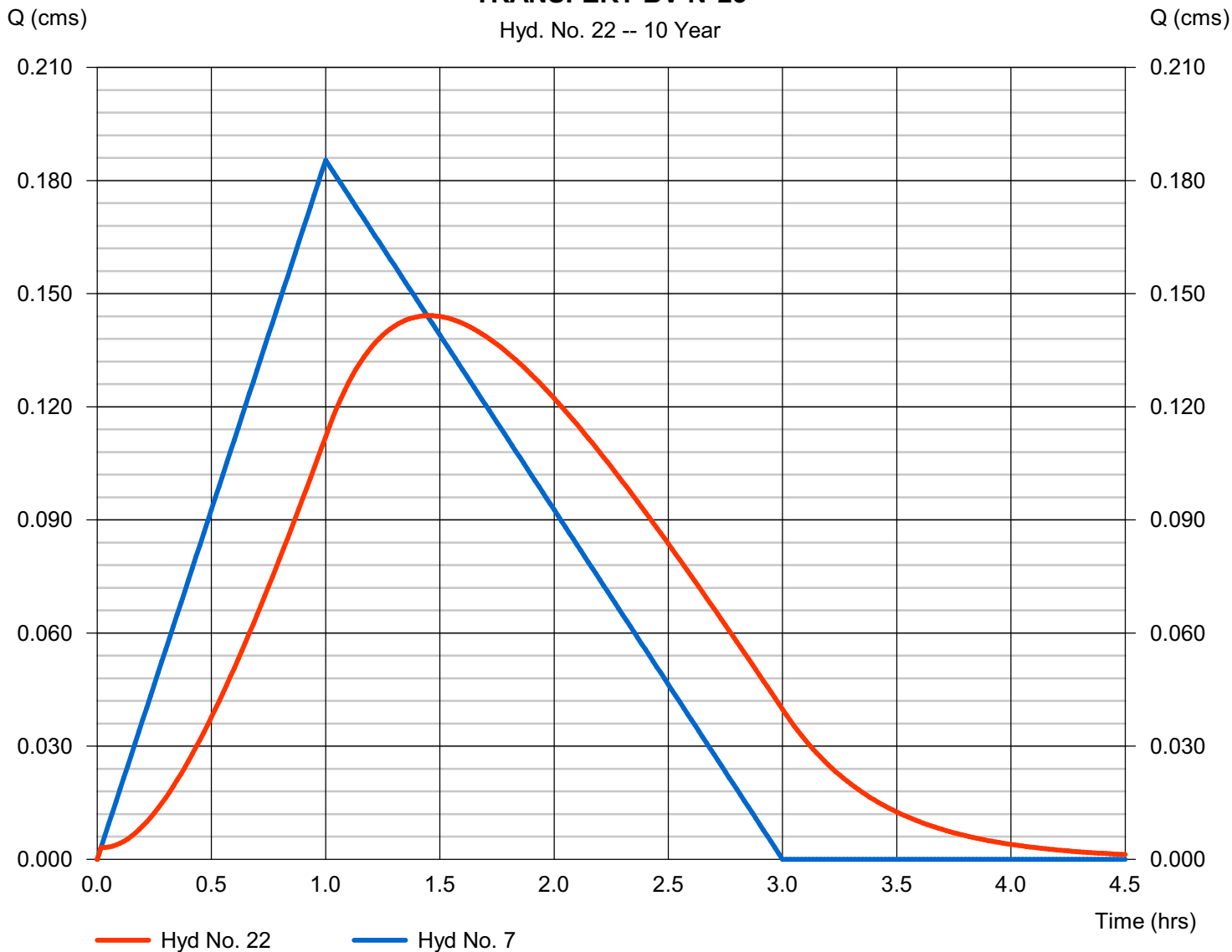
### TRANSFERT BV N°23

Hydrograph type	= Reach	Peak discharge	= 0.144 cms
Storm frequency	= 10 yrs	Time to peak	= 1.45 hrs
Time interval	= 1 min	Hyd. volume	= 1 005.6 cum
Inflow hyd. No.	= 7 - BV N°23	Section type	= Rectangular
Reach length	= 1938.0 m	Channel slope	= 1.4 %
Manning's n	= 0.025	Bottom width	= 2.0 m
Side slope	= 0.0:1	Max. depth	= 4.0 m
Rating curve x	= 2.011	Rating curve m	= 1.426
Ave. velocity	= 0.87 m/s	Routing coeff.	= 0.0378

Modified Att-Kin routing method used.

### TRANSFERT BV N°23

Hyd. No. 22 -- 10 Year



# Hydrograph Report

Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2010 by Autodesk, Inc. v9.25

vendredi, févr 5, 2010

## Hyd. No. 23

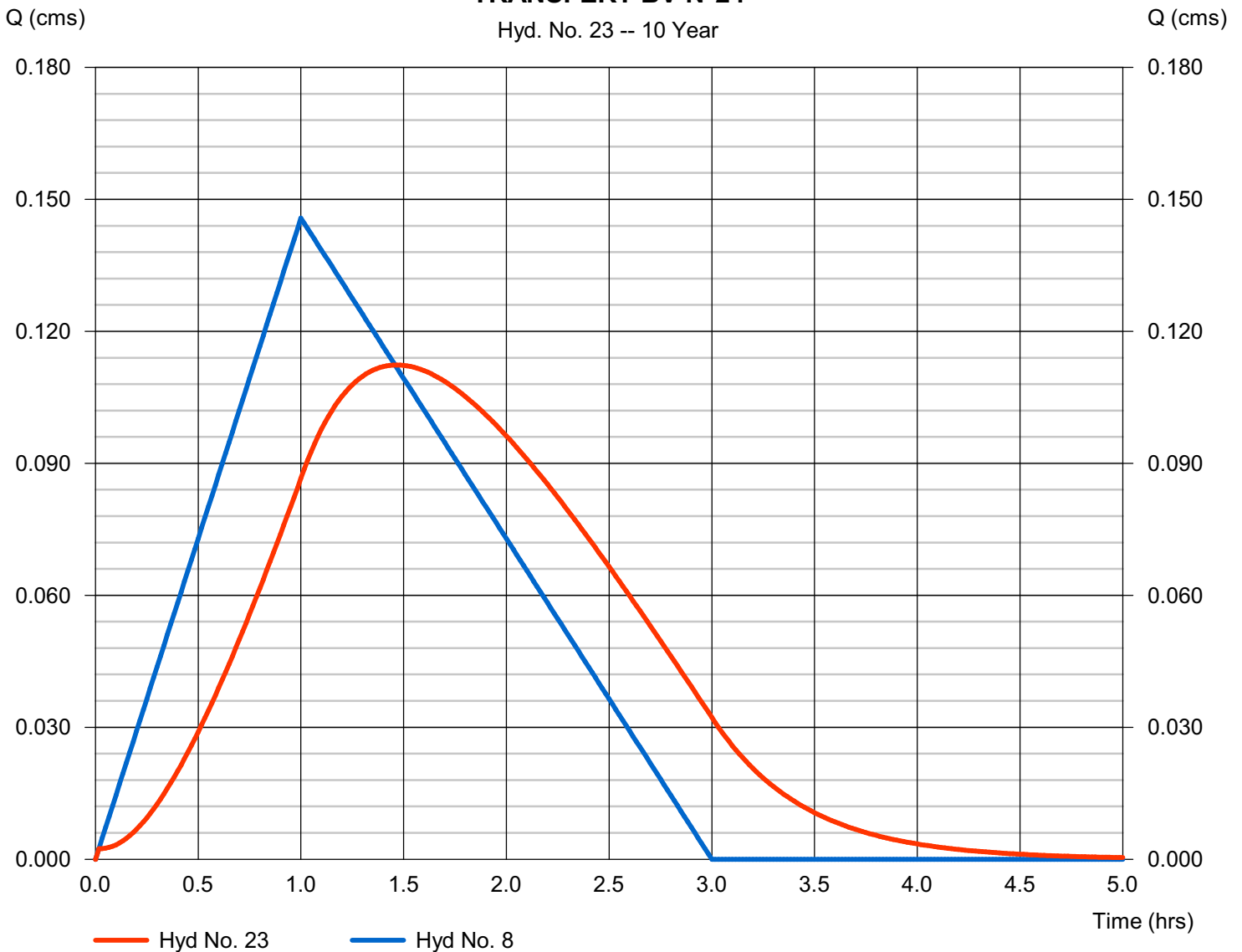
### TRANSFERT BV N°24

Hydrograph type	= Reach	Peak discharge	= 0.112 cms
Storm frequency	= 10 yrs	Time to peak	= 1.47 hrs
Time interval	= 1 min	Hyd. volume	= 790.6 cum
Inflow hyd. No.	= 8 - BV N°24	Section type	= Rectangular
Reach length	= 1960.0 m	Channel slope	= 1.6 %
Manning's n	= 0.025	Bottom width	= 2.0 m
Side slope	= 0.0:1	Max. depth	= 4.0 m
Rating curve x	= 2.150	Rating curve m	= 1.426
Ave. velocity	= 0.85 m/s	Routing coeff.	= 0.0365

Modified Att-Kin routing method used.

### TRANSFERT BV N°24

Hyd. No. 23 -- 10 Year



# Hydrograph Report

Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2010 by Autodesk, Inc. v9.25

vendredi, févr 5, 2010

## Hyd. No. 24

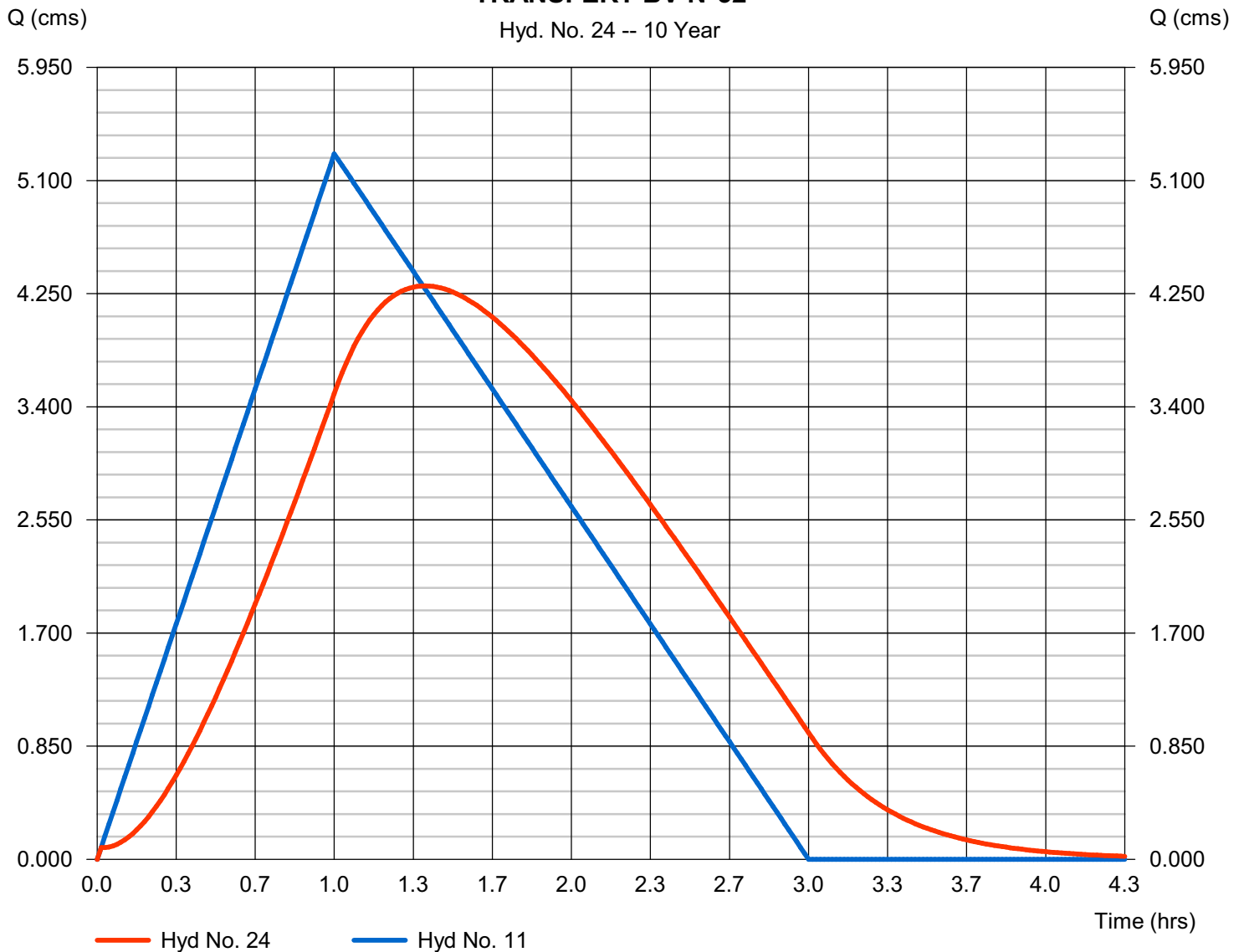
### TRANSFERT BV N°32

Hydrograph type	= Reach	Peak discharge	= 4.308 cms
Storm frequency	= 10 yrs	Time to peak	= 1.38 hrs
Time interval	= 1 min	Hyd. volume	= 28 734.1 cum
Inflow hyd. No.	= 11 - BV N°32	Section type	= Rectangular
Reach length	= 3124.0 m	Channel slope	= 0.6 %
Manning's n	= 0.026	Bottom width	= 2.0 m
Side slope	= 0.0:1	Max. depth	= 4.0 m
Rating curve x	= 1.266	Rating curve m	= 1.426
Ave. velocity	= 1.72 m/s	Routing coeff.	= 0.0459

Modified Att-Kin routing method used.

### TRANSFERT BV N°32

Hyd. No. 24 -- 10 Year



# Hydrograph Report

Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2010 by Autodesk, Inc. v9.25

vendredi, févr 5, 2010

## Hyd. No. 25

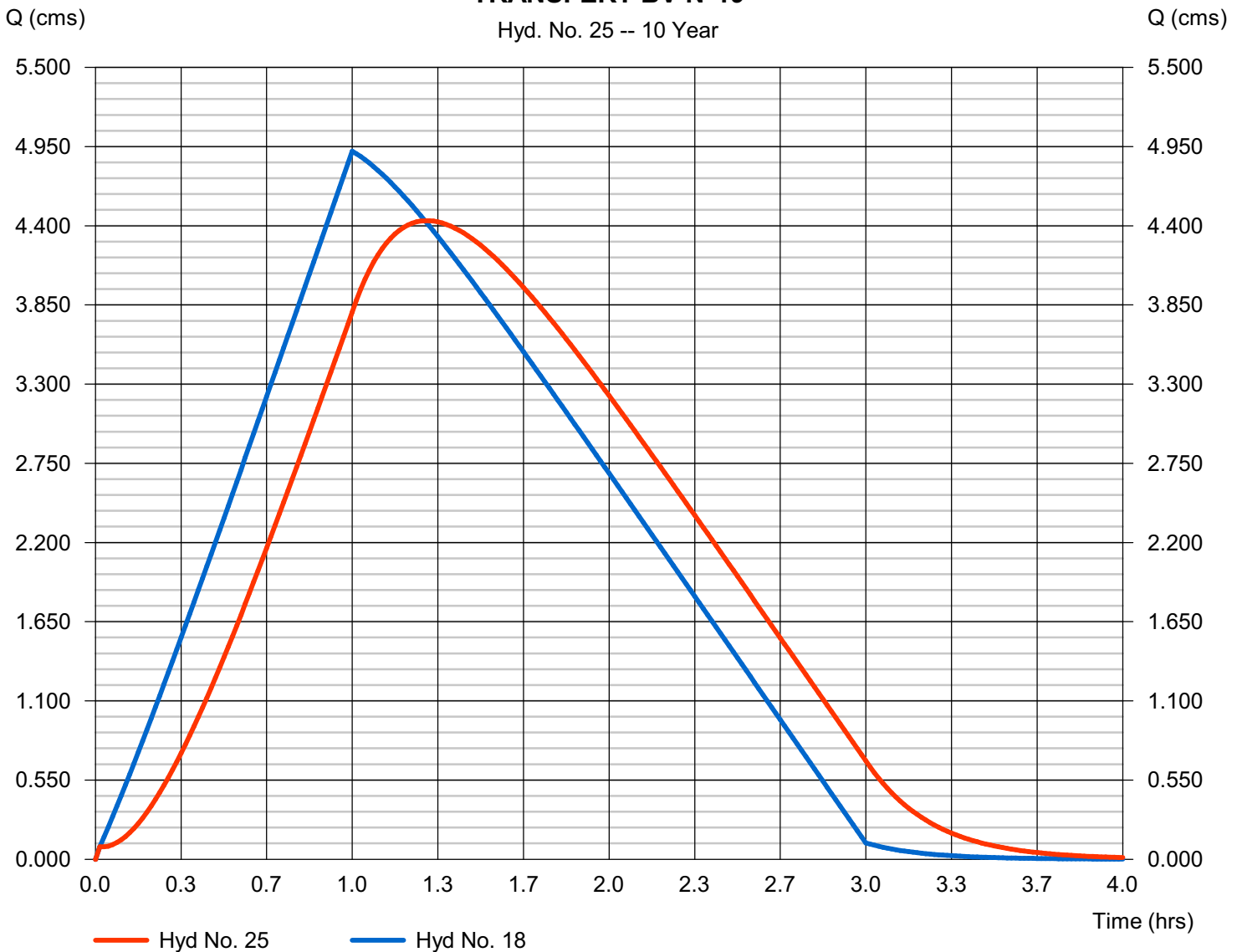
### TRANSFERT BV N°19

Hydrograph type	= Reach	Peak discharge	= 4.435 cms
Storm frequency	= 10 yrs	Time to peak	= 1.28 hrs
Time interval	= 1 min	Hyd. volume	= 27 843.3 cum
Inflow hyd. No.	= 18 - EXUTOIRE BV N°19	Section type	= Rectangular
Reach length	= 2180.0 m	Channel slope	= 0.9 %
Manning's n	= 0.025	Bottom width	= 2.0 m
Side slope	= 0.0:1	Max. depth	= 4.0 m
Rating curve x	= 1.612	Rating curve m	= 1.426
Ave. velocity	= 1.99 m/s	Routing coeff.	= 0.0751

Modified Att-Kin routing method used.

### TRANSFERT BV N°19

Hyd. No. 25 -- 10 Year



# Hydrograph Report

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vendredi, févr 5, 2010

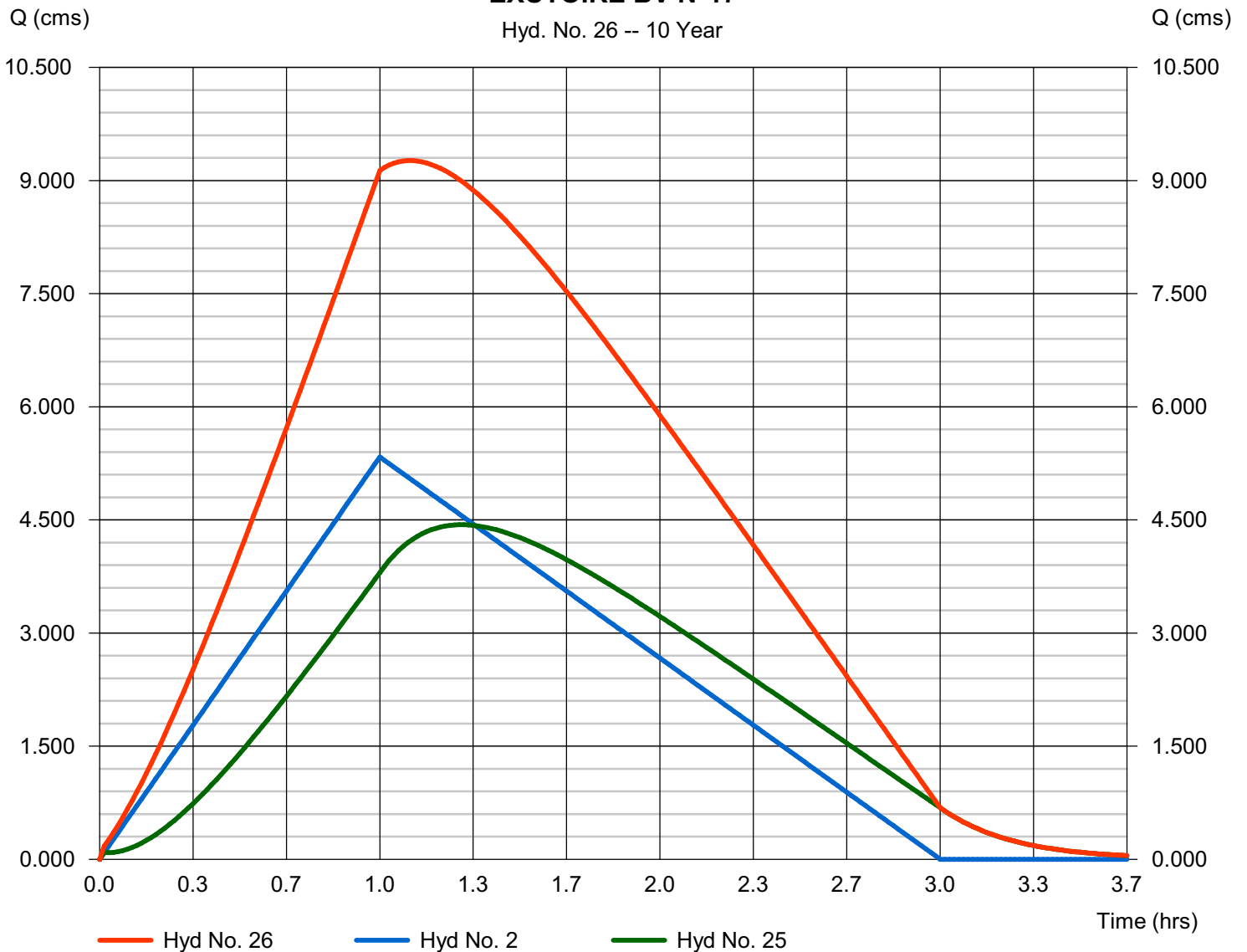
## Hyd. No. 26

EXUTOIRE BV N°17

Hydrograph type	= Combine	Peak discharge	= 9.265 cms
Storm frequency	= 10 yrs	Time to peak	= 1.10 hrs
Time interval	= 1 min	Hyd. volume	= 56 646.9 cum
Inflow hyds.	= 2, 25	Contrib. drain. area	= 417.200 hectare

### EXUTOIRE BV N°17

Hyd. No. 26 -- 10 Year



# Hydrograph Report

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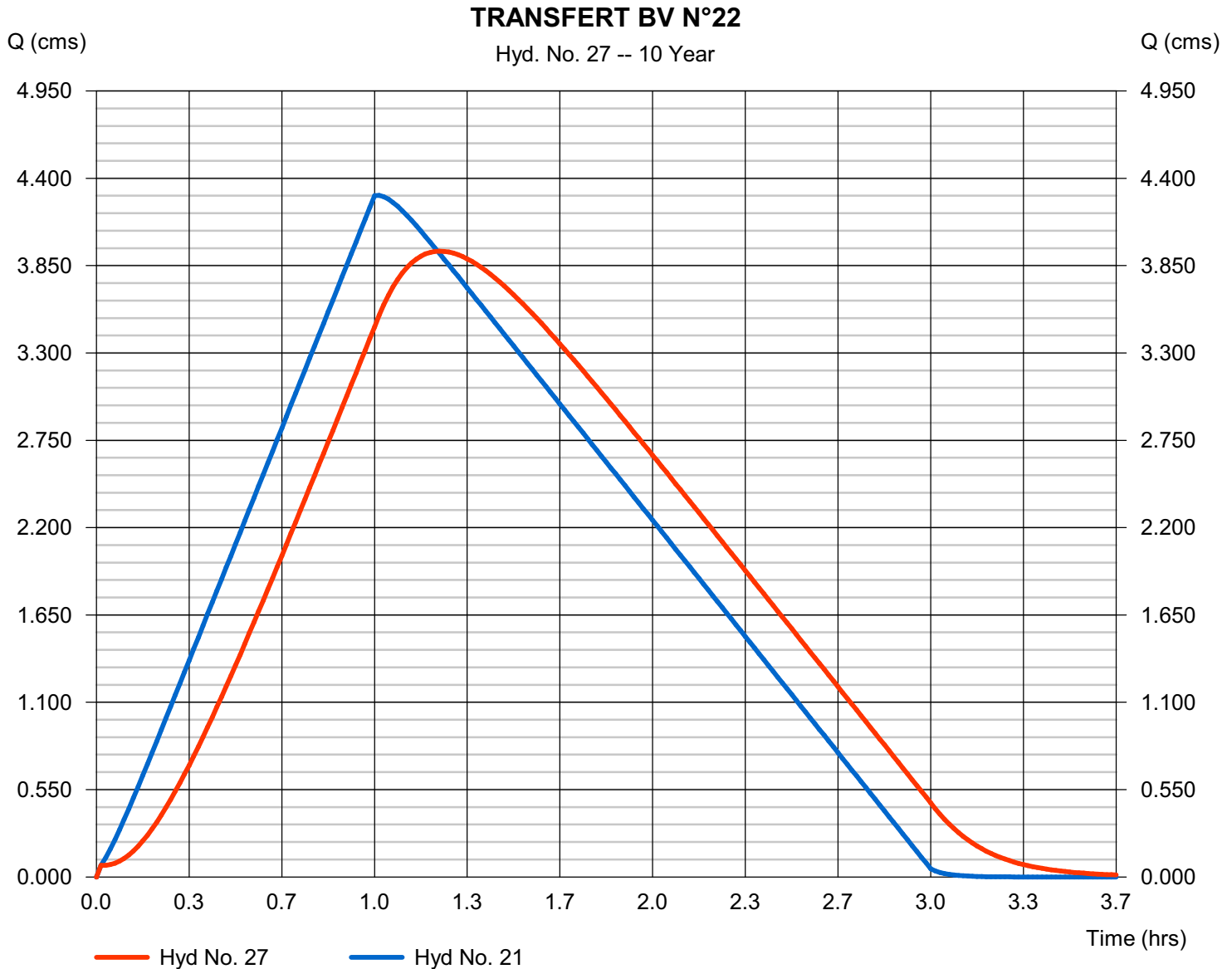
vendredi, févr 5, 2010

## Hyd. No. 27

### TRANSFERT BV N°22

Hydrograph type	= Reach	Peak discharge	= 3.941 cms
Storm frequency	= 10 yrs	Time to peak	= 1.23 hrs
Time interval	= 1 min	Hyd. volume	= 23 772.9 cum
Inflow hyd. No.	= 21 - EXUTOIRE BV N°22	Section type	= Rectangular
Reach length	= 1840.0 m	Channel slope	= 1.0 %
Manning's n	= 0.025	Bottom width	= 2.0 m
Side slope	= 0.0:1	Max. depth	= 4.0 m
Rating curve x	= 1.699	Rating curve m	= 1.426
Ave. velocity	= 1.98 m/s	Routing coeff.	= 0.0881

Modified Att-Kin routing method used.





# Hydrograph Report

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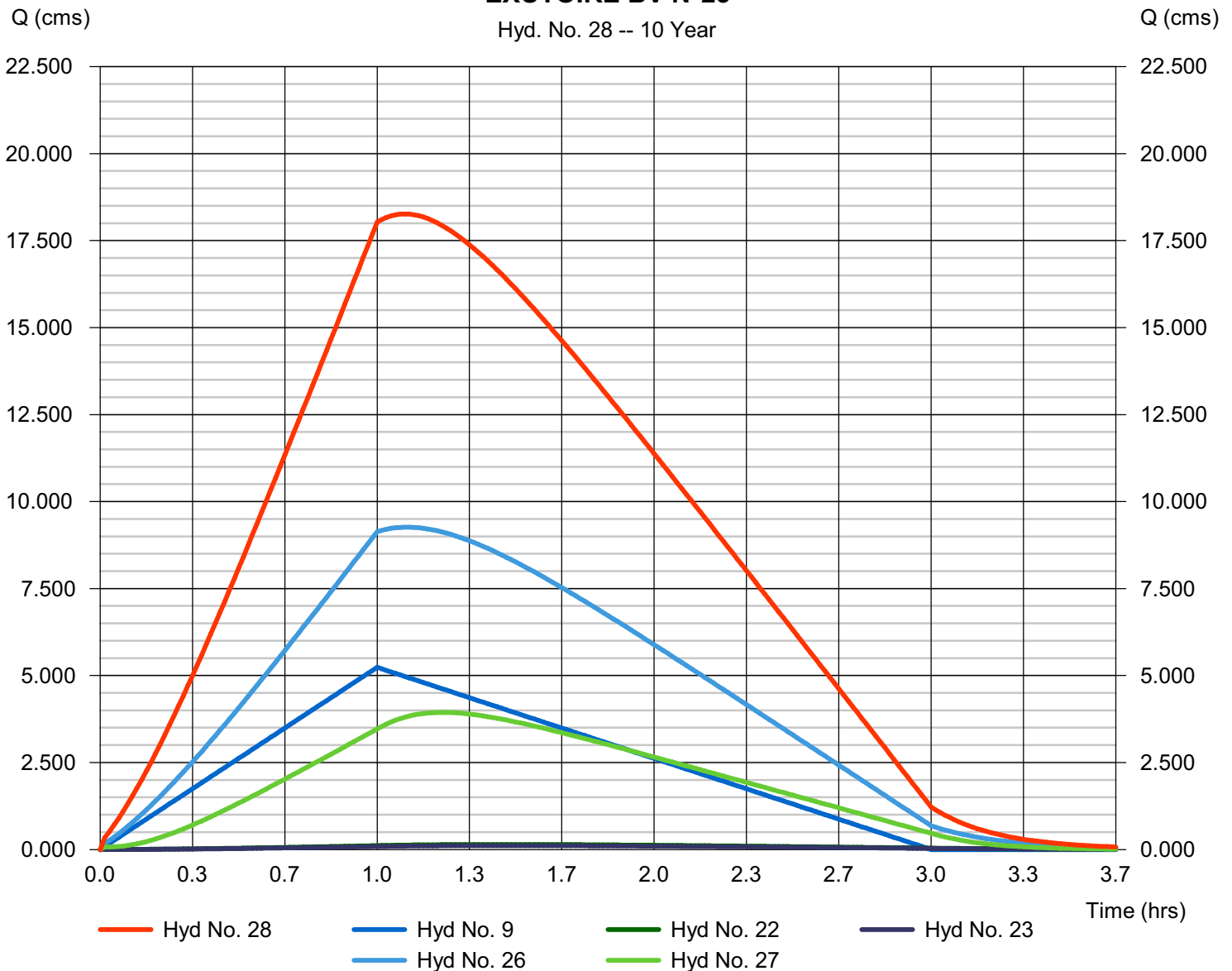
## Hyd. No. 28

EXUTOIRE BV N°25

Hydrograph type	= Combine	Peak discharge	= 18.27 cms
Storm frequency	= 10 yrs	Time to peak	= 1.10 hrs
Time interval	= 1 min	Hyd. volume	= 110 487.7 cum
Inflow hyds.	= 9, 22, 23, 26, 27	Contrib. drain. area	= 409.500 hectare

### EXUTOIRE BV N°25

Hyd. No. 28 -- 10 Year



# Hydrograph Report

## Hyd. No. 29

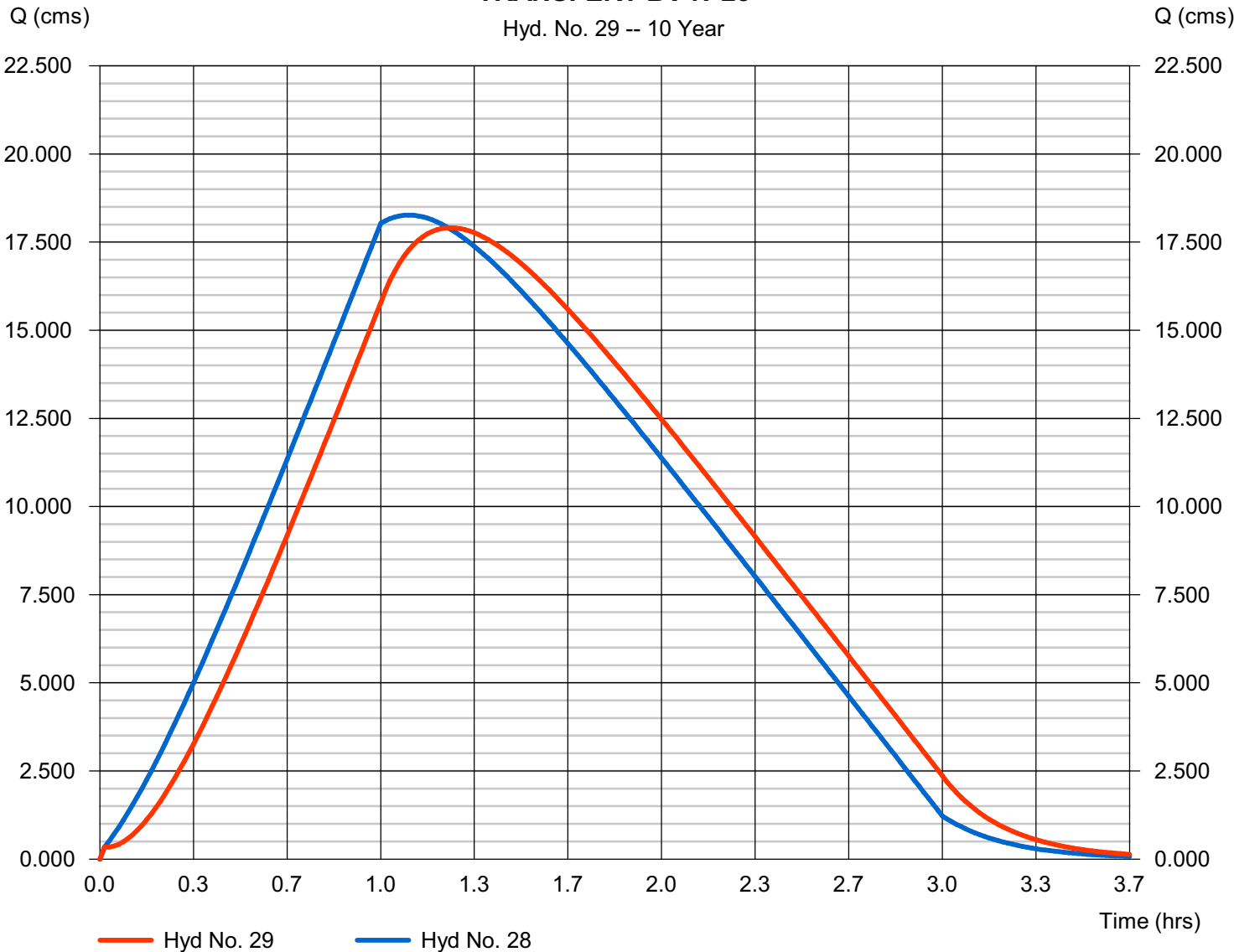
### TRANSFERT BV N°25

Hydrograph type	= Reach	Peak discharge	= 17.91 cms
Storm frequency	= 10 yrs	Time to peak	= 1.25 hrs
Time interval	= 1 min	Hyd. volume	= 110 624.7 cum
Inflow hyd. No.	= 28 - EXUTOIRE BV N°25	Section type	= Rectangular
Reach length	= 1063.0 m	Channel slope	= 0.3 %
Manning's n	= 0.025	Bottom width	= 2.0 m
Side slope	= 0.0:1	Max. depth	= 4.0 m
Rating curve x	= 0.931	Rating curve m	= 1.426
Ave. velocity	= 2.00 m/s	Routing coeff.	= 0.1492

Modified Att-Kin routing method used.

### TRANSFERT BV N°25

Hyd. No. 29 -- 10 Year



# Hydrograph Report

Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2010 by Autodesk, Inc. v9.25

vendredi, févr 5, 2010

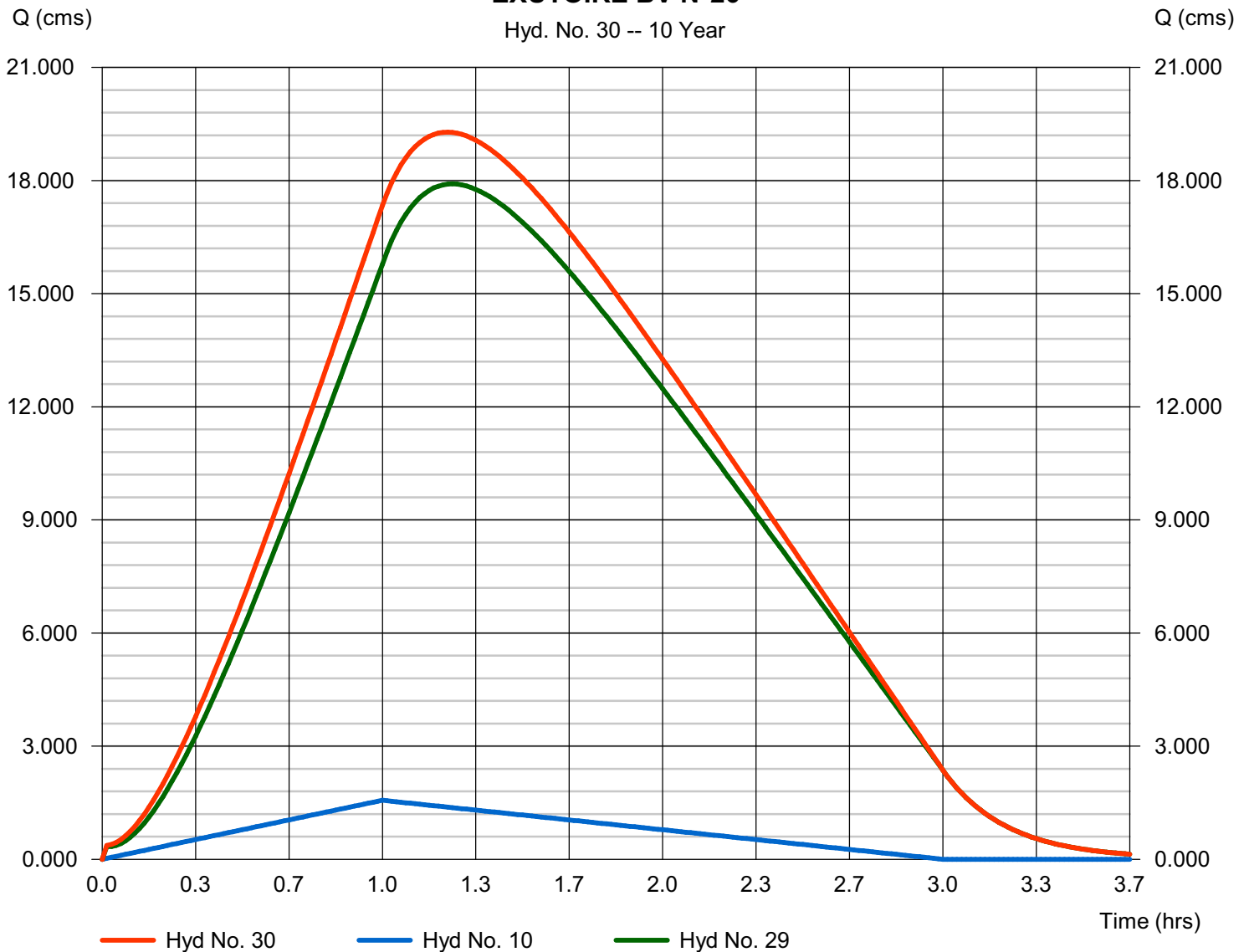
## Hyd. No. 30

EXUTOIRE BV N°26

Hydrograph type	= Combine	Peak discharge	= 19.28 cms
Storm frequency	= 10 yrs	Time to peak	= 1.23 hrs
Time interval	= 1 min	Hyd. volume	= 119 066.3 cum
Inflow hyds.	= 10, 29	Contrib. drain. area	= 109.400 hectare

### EXUTOIRE BV N°26

Hyd. No. 30 -- 10 Year



# Hydrograph Report

Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2010 by Autodesk, Inc. v9.25

vendredi, févr 5, 2010

## Hyd. No. 31

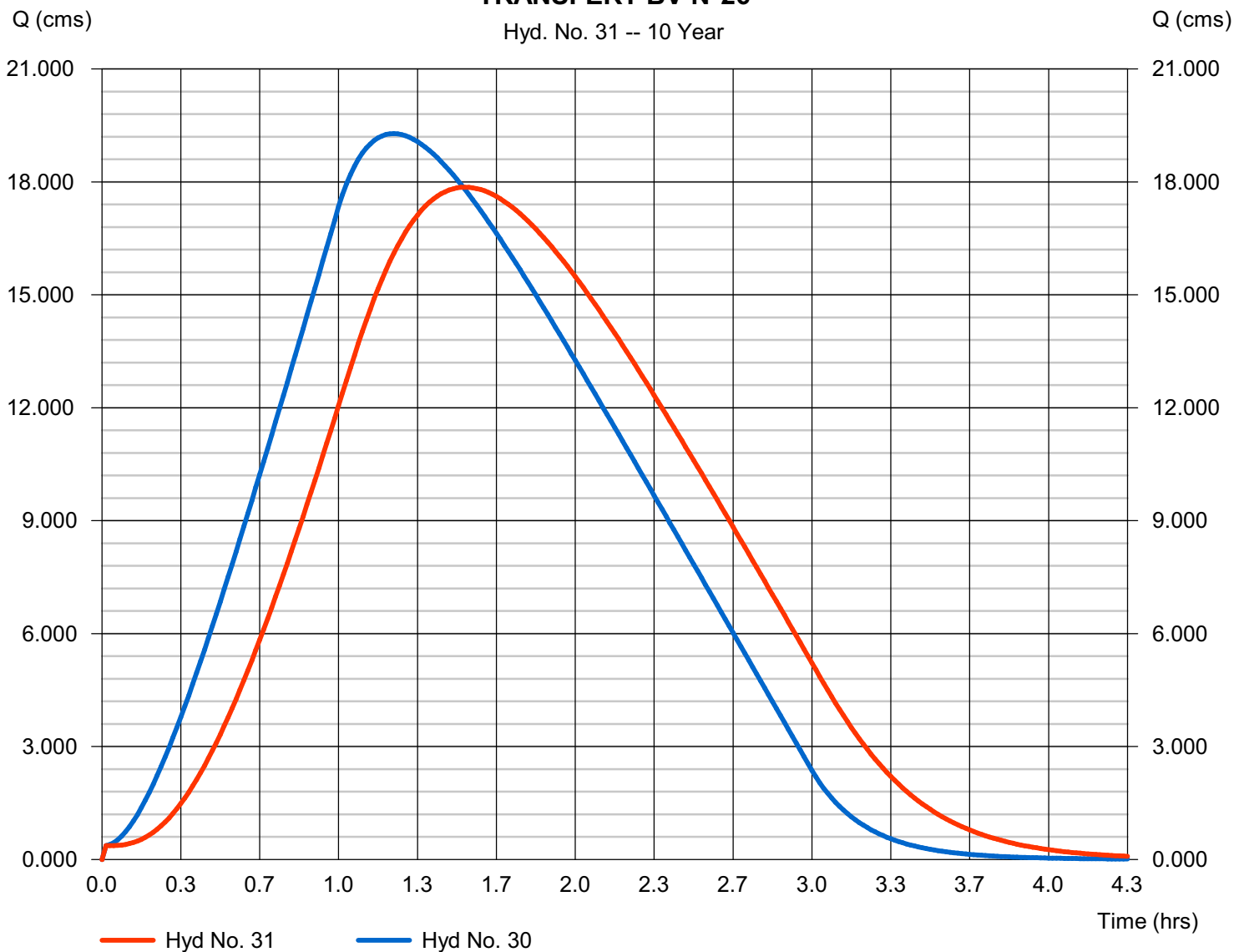
### TRANSFERT BV N°26

Hydrograph type	= Reach	Peak discharge	= 17.86 cms
Storm frequency	= 10 yrs	Time to peak	= 1.53 hrs
Time interval	= 1 min	Hyd. volume	= 119 411.6 cum
Inflow hyd. No.	= 30 - EXUTOIRE BV N°26	Section type	= Rectangular
Reach length	= 3286.0 m	Channel slope	= 0.6 %
Manning's n	= 0.026	Bottom width	= 2.0 m
Side slope	= 0.0:1	Max. depth	= 4.0 m
Rating curve x	= 1.266	Rating curve m	= 1.426
Ave. velocity	= 2.52 m/s	Routing coeff.	= 0.0637

Modified Att-Kin routing method used.

### TRANSFERT BV N°26

Hyd. No. 31 -- 10 Year



# Hydrograph Report

Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2010 by Autodesk, Inc. v9.25

vendredi, févr 5, 2010

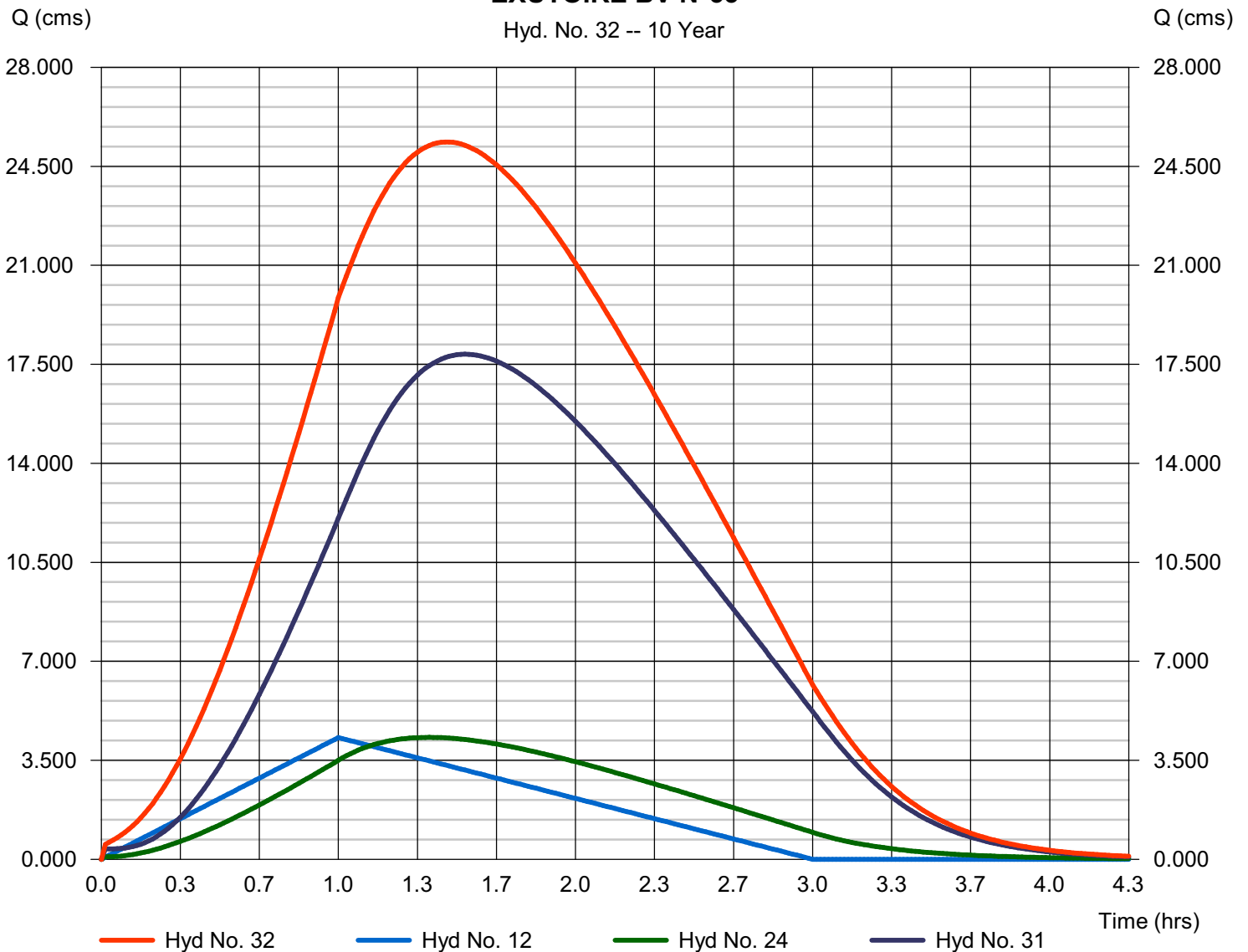
## Hyd. No. 32

EXUTOIRE BV N°33

Hydrograph type	= Combine	Peak discharge	= 25.36 cms
Storm frequency	= 10 yrs	Time to peak	= 1.45 hrs
Time interval	= 1 min	Hyd. volume	= 171 375.6 cum
Inflow hyds.	= 12, 24, 31	Contrib. drain. area	= 357.500 hectare

### EXUTOIRE BV N°33

Hyd. No. 32 -- 10 Year



## Watershed Model Schematic..... 1

### 10 - Year

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# Watershed Model Schematic

Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2010 by Autodesk, Inc. v9.25

BV N°1



## Legend

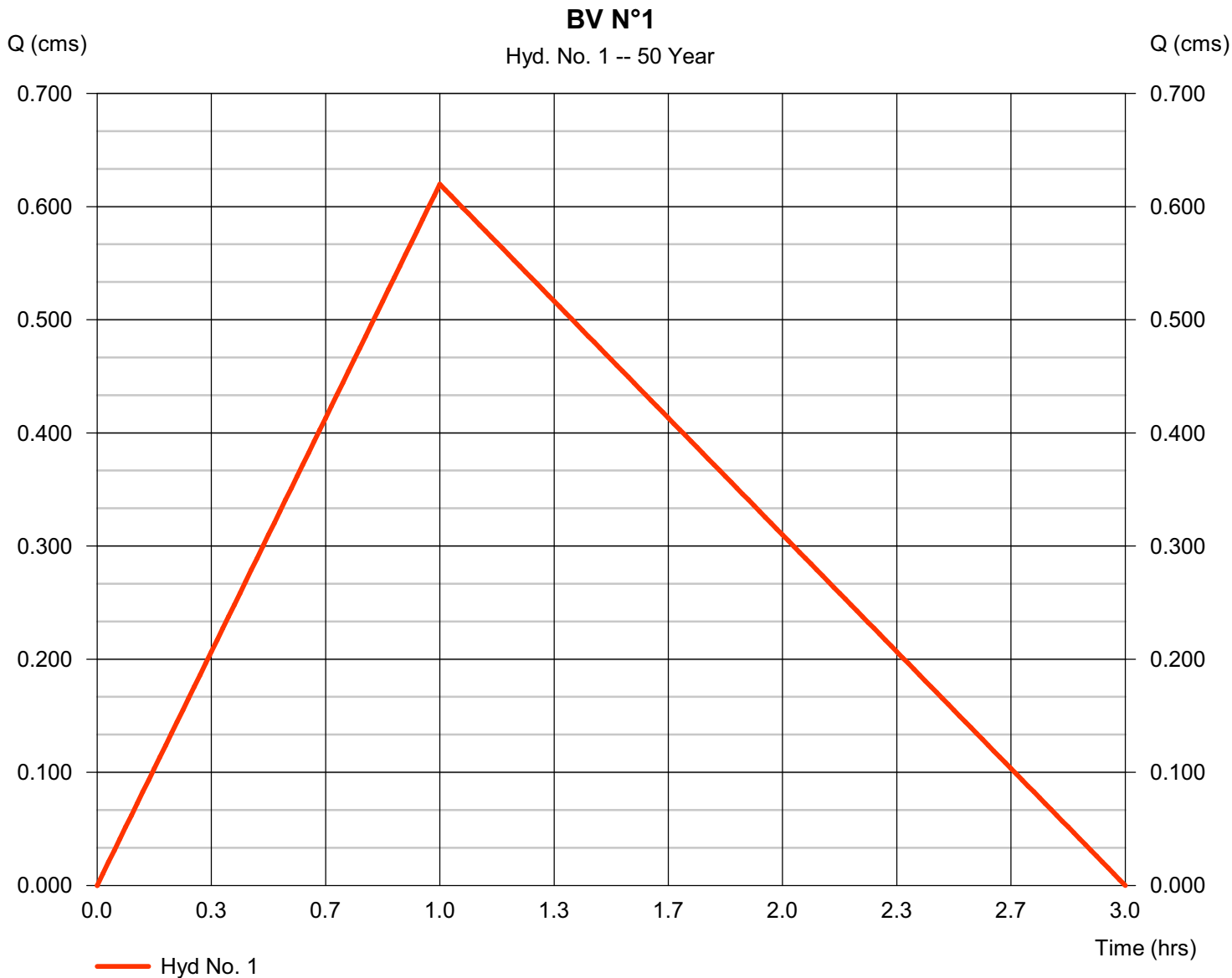
<u>Hyd.</u>	<u>Origin</u>	<u>Description</u>
1	Rational	BV N°1

# Hydrograph Report

## Hyd. No. 1

BV N°1

Hydrograph type	= Rational	Peak discharge	= 0.620 cms
Storm frequency	= 50 yrs	Time to peak	= 1.00 hrs
Time interval	= 1 min	Hyd. volume	= 3 346.6 cum
Drainage area	= 29.300 hectare	Runoff coeff.	= 0.22
Intensity	= 34.900 mm/hr	Tc by User	= 60.00 min
IDF Curve	= IDF_ALSACE.IDF	Asc/Rec limb fact	= 1/2





# Watershed Model Schematic

Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2010 by Autodesk, Inc. v9.25

BV N°2



## **Legend**

<b><u>Hyd.</u></b>	<b><u>Origin</u></b>	<b><u>Description</u></b>
1	Rational	BV N°2

# Hydrograph Report

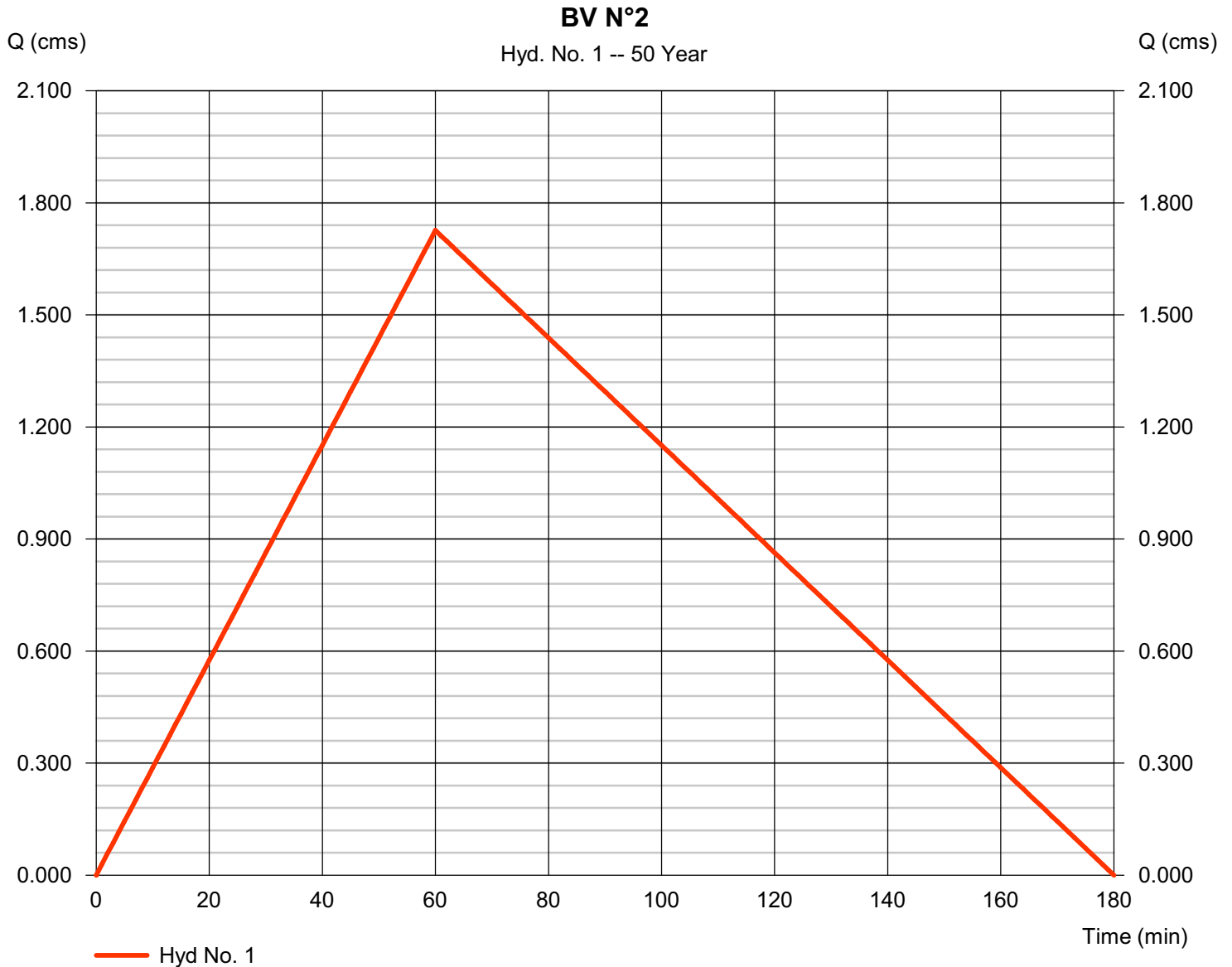
Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2010 by Autodesk, Inc. v9.25

vendredi, févr 5, 2010

## Hyd. No. 1

BV N°2

Hydrograph type	= Rational	Peak discharge	= 1.726 cms
Storm frequency	= 50 yrs	Time to peak	= 60 min
Time interval	= 1 min	Hyd. volume	= 9 321.8 cum
Drainage area	= 94.500 hectare	Runoff coeff.	= 0.19
Intensity	= 34.900 mm/hr	Tc by User	= 60.00 min
IDF Curve	= IDF_ALSACE.IDF	Asc/Rec limb fact	= 1/2



# Watershed Model Schematic

Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2010 by Autodesk, Inc. v9.25

BV N°3



## **Legend**

<b><u>Hyd.</u></b>	<b><u>Origin</u></b>	<b><u>Description</u></b>
1	Rational	BV N°3

# Hydrograph Report

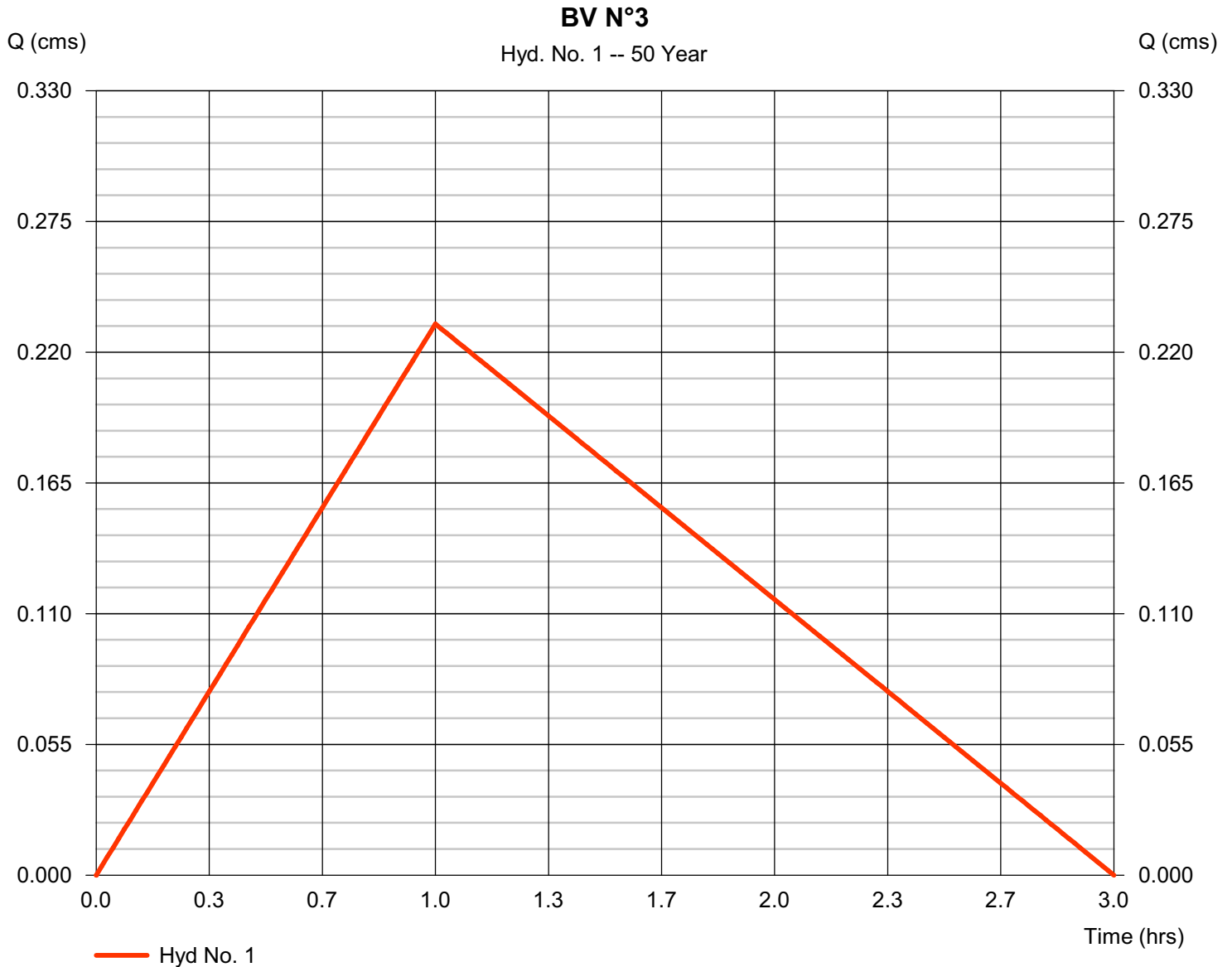
Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2010 by Autodesk, Inc. v9.25

vendredi, févr 5, 2010

## Hyd. No. 1

BV N°3

Hydrograph type	= Rational	Peak discharge	= 0.232 cms
Storm frequency	= 50 yrs	Time to peak	= 1.00 hrs
Time interval	= 1 min	Hyd. volume	= 1 252.3 cum
Drainage area	= 13.400 hectare	Runoff coeff.	= 0.18
Intensity	= 34.900 mm/hr	Tc by User	= 60.00 min
IDF Curve	= IDF_ALSACE.IDF	Asc/Rec limb fact	= 1/2



# Watershed Model Schematic

Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2010 by Autodesk, Inc. v9.25

BV N°4



## **Legend**

<b><u>Hyd.</u></b>	<b><u>Origin</u></b>	<b><u>Description</u></b>
1	Rational	BV N°4

# Hydrograph Report

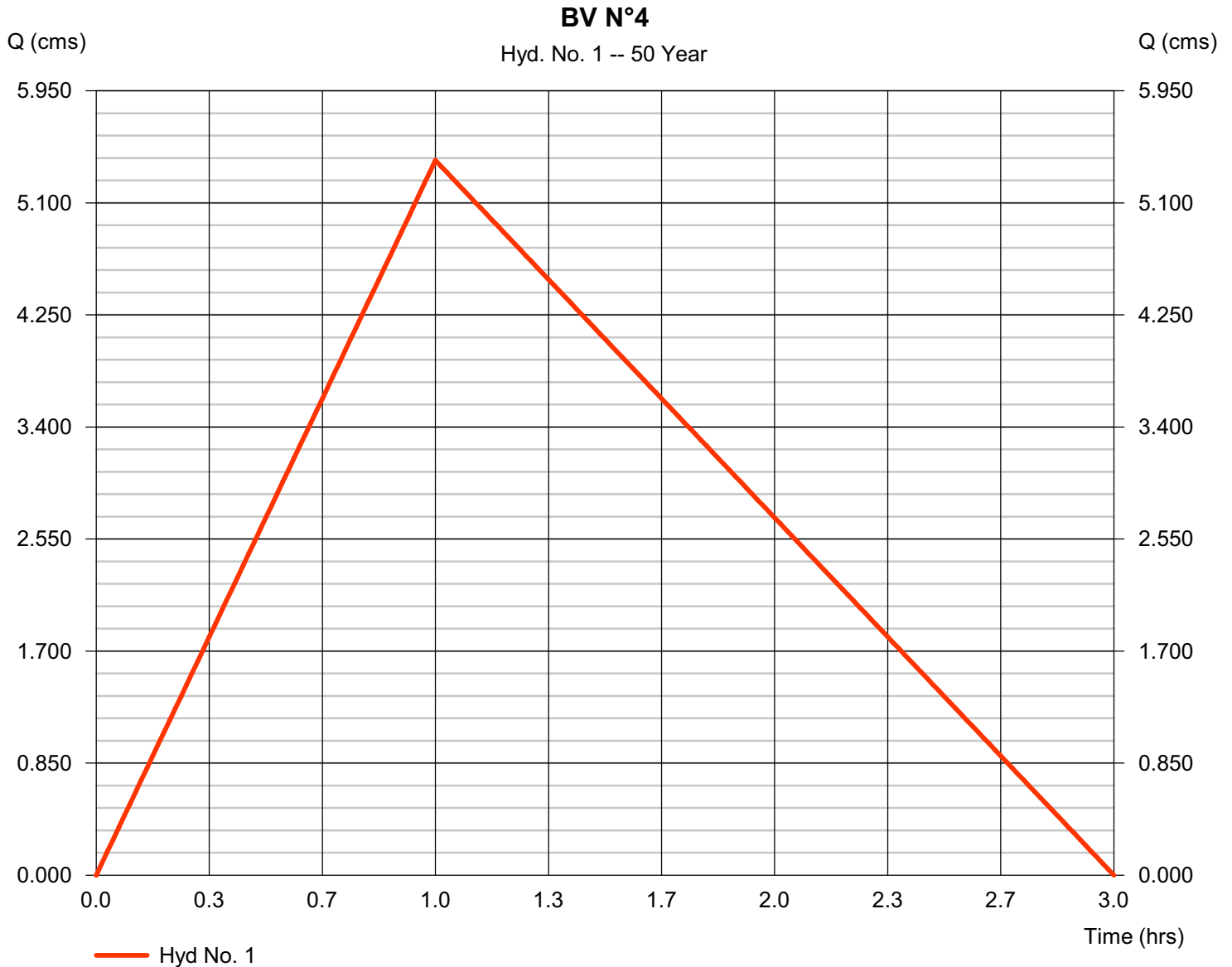
Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2010 by Autodesk, Inc. v9.25

vendredi, févr 5, 2010

## Hyd. No. 1

BV N°4

Hydrograph type	= Rational	Peak discharge	= 5.423 cms
Storm frequency	= 50 yrs	Time to peak	= 1.00 hrs
Time interval	= 1 min	Hyd. volume	= 29 281.5 cum
Drainage area	= 282.000 hectare	Runoff coeff.	= 0.2
Intensity	= 34.900 mm/hr	Tc by User	= 60.00 min
IDF Curve	= IDF_ALSACE.IDF	Asc/Rec limb fact	= 1/2



# Watershed Model Schematic

Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2010 by Autodesk, Inc. v9.25

BV N°5



## **Legend**

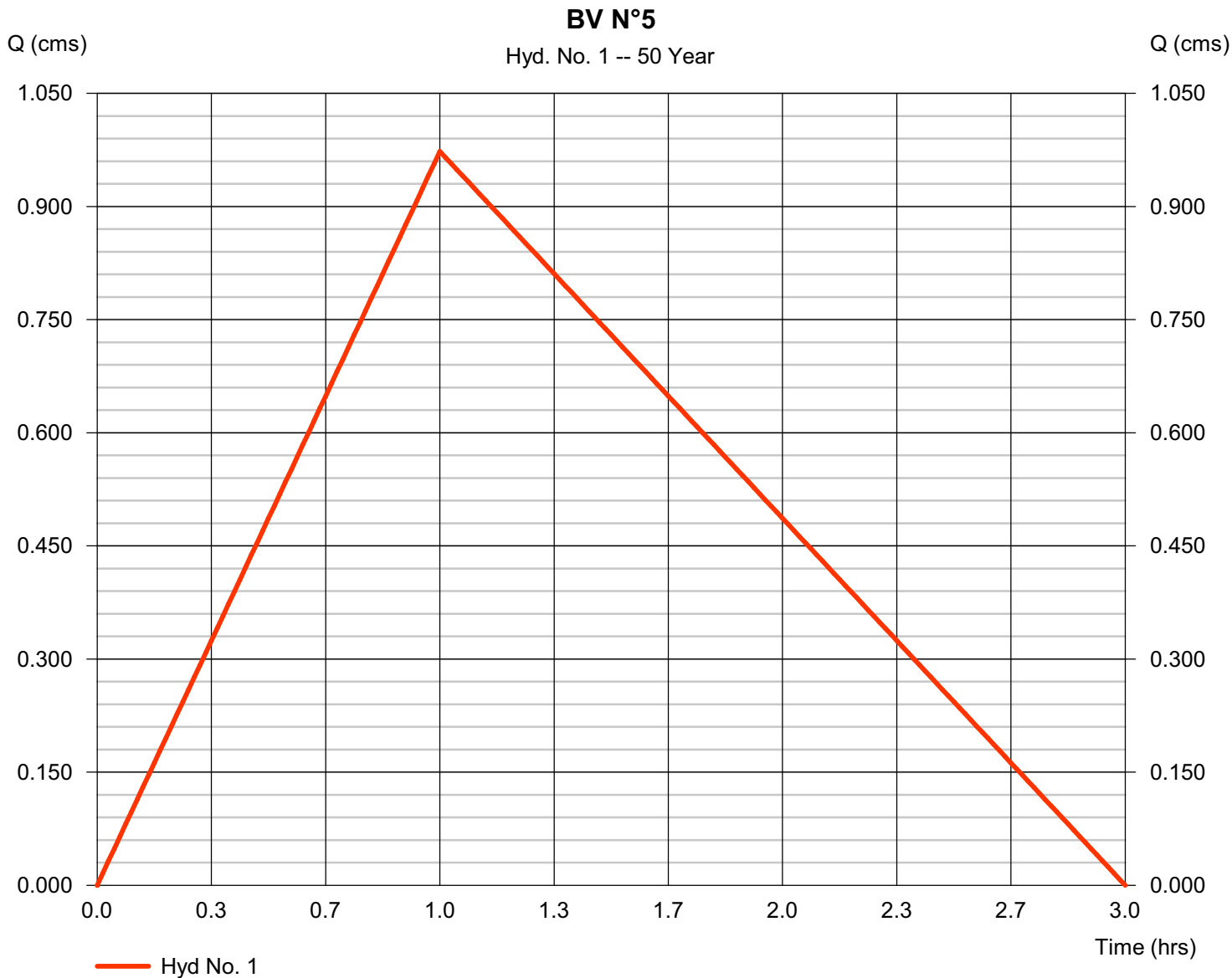
<b><u>Hyd.</u></b>	<b><u>Origin</u></b>	<b><u>Description</u></b>
1	Rational	BV N°5

# Hydrograph Report

## Hyd. No. 1

BV N°5

Hydrograph type	= Rational	Peak discharge	= 0.973 cms
Storm frequency	= 50 yrs	Time to peak	= 1.00 hrs
Time interval	= 1 min	Hyd. volume	= 5 254.1 cum
Drainage area	= 50.600 hectare	Runoff coeff.	= 0.2
Intensity	= 34.900 mm/hr	Tc by User	= 60.00 min
IDF Curve	= IDF_ALSACE.IDF	Asc/Rec limb fact	= 1/2





# Watershed Model Schematic

Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2010 by Autodesk, Inc. v9.25

BV N°15



## **Legend**

<b><u>Hyd.</u></b>	<b><u>Origin</u></b>	<b><u>Description</u></b>
1	Rational	BV N°15

# Hydrograph Report

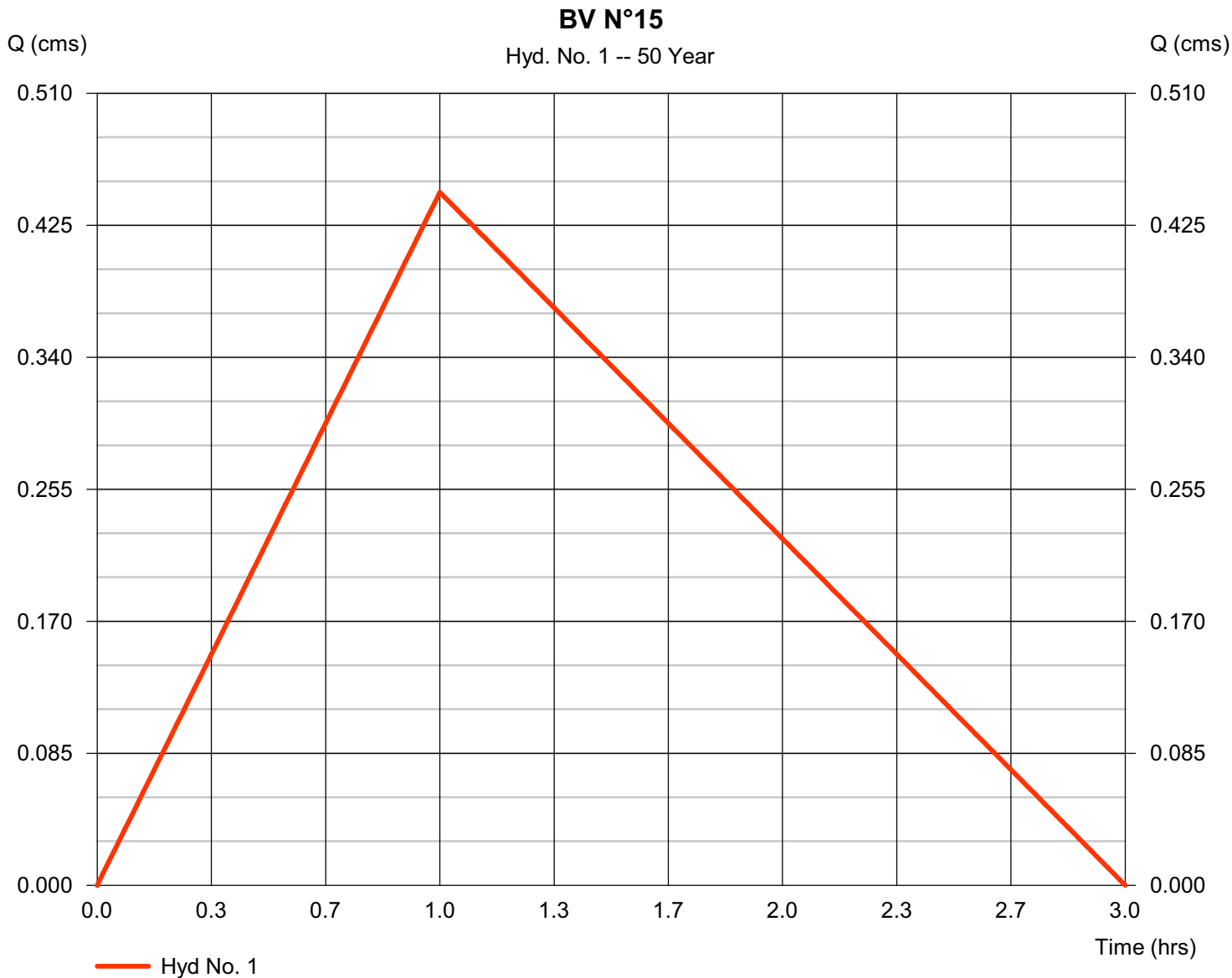
Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2010 by Autodesk, Inc. v9.25

vendredi, févr 5, 2010

## Hyd. No. 1

BV N°15

Hydrograph type	= Rational	Peak discharge	= 0.446 cms
Storm frequency	= 50 yrs	Time to peak	= 1.00 hrs
Time interval	= 1 min	Hyd. volume	= 2 410.0 cum
Drainage area	= 21.100 hectare	Runoff coeff.	= 0.22
Intensity	= 34.900 mm/hr	Tc by User	= 60.00 min
IDF Curve	= IDF_ALSACE.IDF	Asc/Rec limb fact	= 1/2



# Watershed Model Schematic

Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2010 by Autodesk, Inc. v9.25

BV N°18



## **Legend**

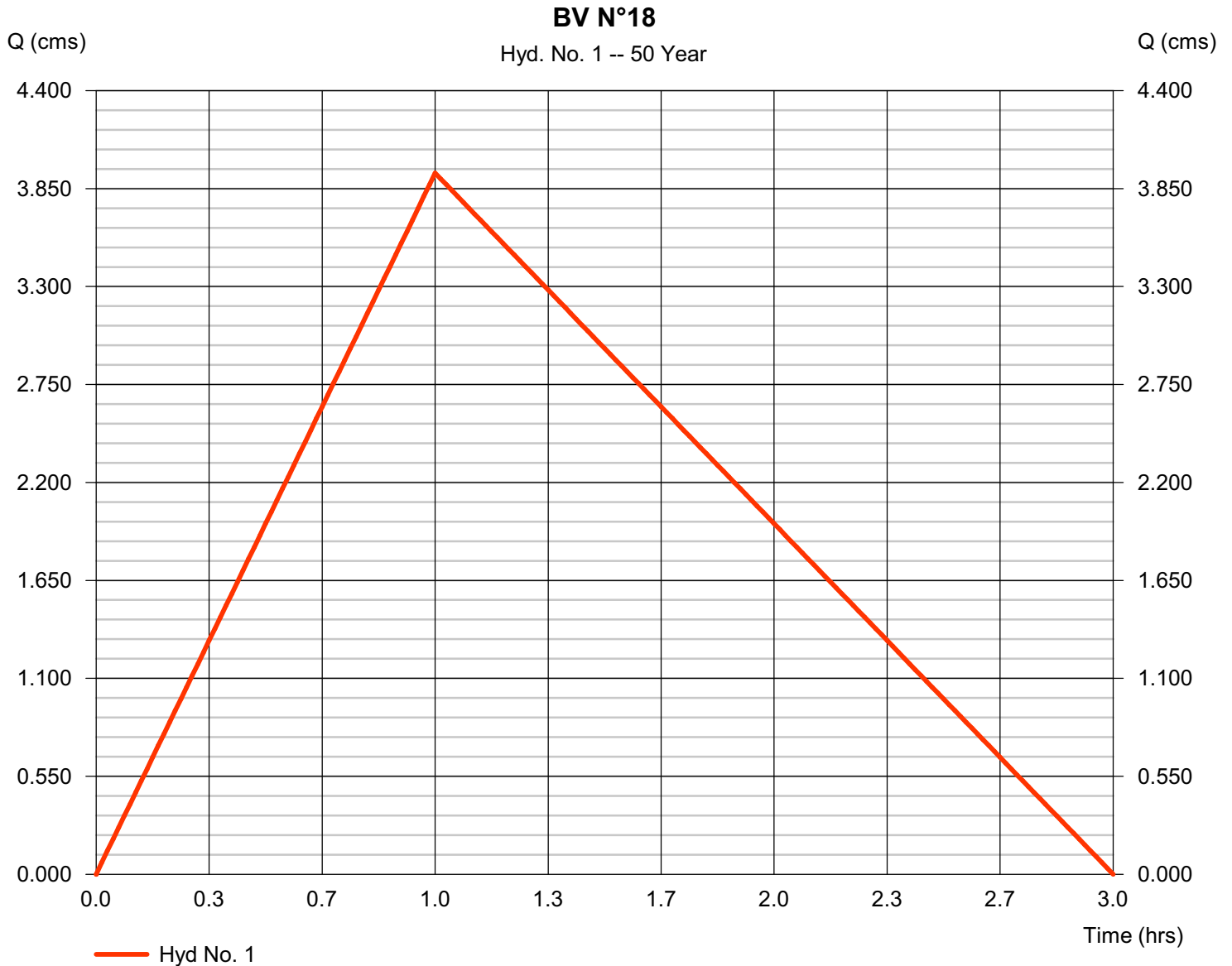
<b><u>Hyd.</u></b>	<b><u>Origin</u></b>	<b><u>Description</u></b>
1	Rational	BV N°18

# Hydrograph Report

## Hyd. No. 1

BV N°18

Hydrograph type	= Rational	Peak discharge	= 3.937 cms
Storm frequency	= 50 yrs	Time to peak	= 1.00 hrs
Time interval	= 1 min	Hyd. volume	= 21 260.3 cum
Drainage area	= 195.000 hectare	Runoff coeff.	= 0.21
Intensity	= 34.900 mm/hr	Tc by User	= 60.00 min
IDF Curve	= IDF_ALSACE.IDF	Asc/Rec limb fact	= 1/2



# Watershed Model Schematic

Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2010 by Autodesk, Inc. v9.25

BV N°27



## **Legend**

<b><u>Hyd.</u></b>	<b><u>Origin</u></b>	<b><u>Description</u></b>
1	Rational	BV N°27

# Hydrograph Report

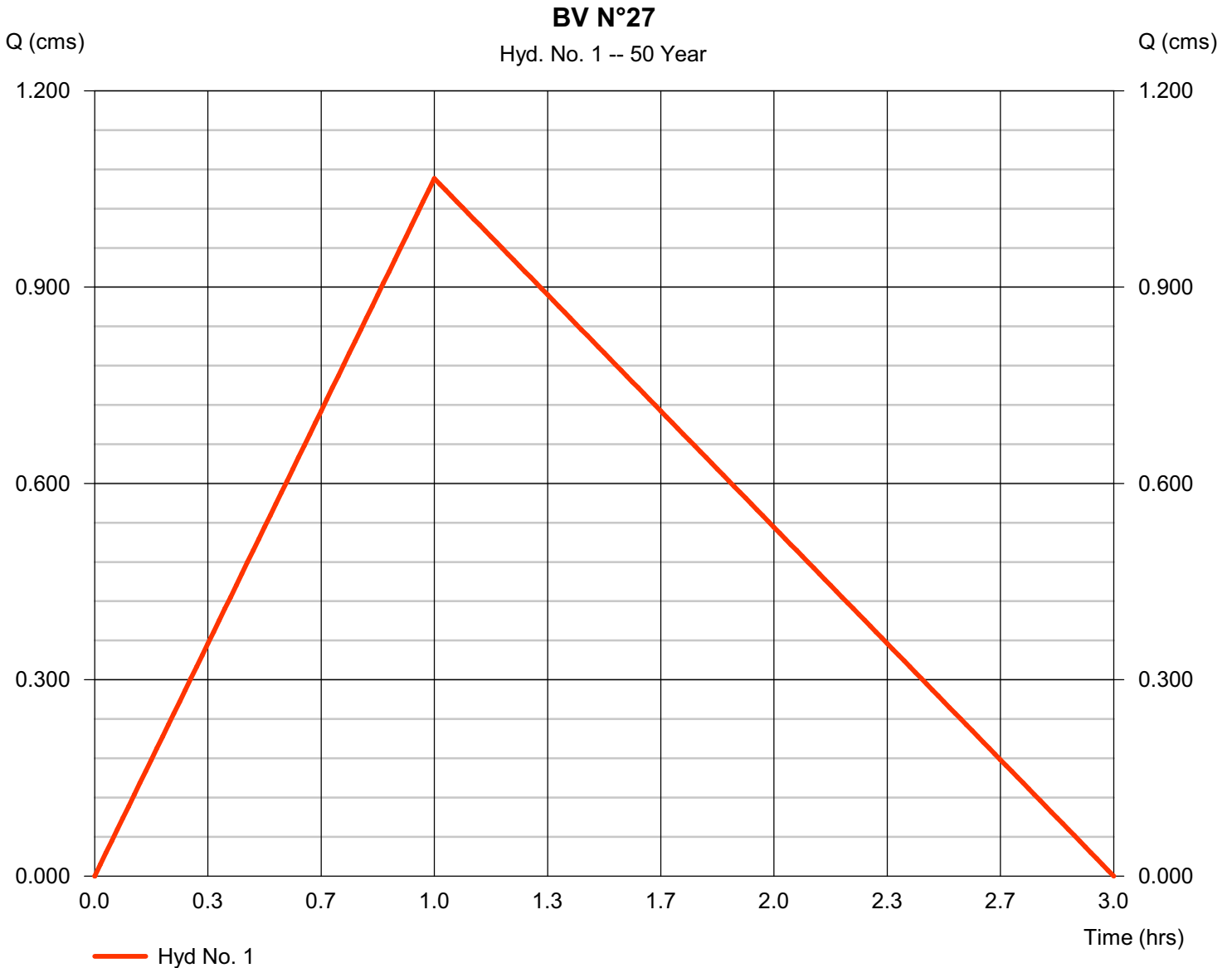
Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2010 by Autodesk, Inc. v9.25

vendredi, févr 5, 2010

## Hyd. No. 1

BV N°27

Hydrograph type	= Rational	Peak discharge	= 1.066 cms
Storm frequency	= 50 yrs	Time to peak	= 1.00 hrs
Time interval	= 1 min	Hyd. volume	= 5 756.6 cum
Drainage area	= 52.800 hectare	Runoff coeff.	= 0.21
Intensity	= 34.900 mm/hr	Tc by User	= 60.00 min
IDF Curve	= IDF_ALSACE.IDF	Asc/Rec limb fact	= 1/2



# Watershed Model Schematic

Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2010 by Autodesk, Inc. v9.25

BV N°28



## **Legend**

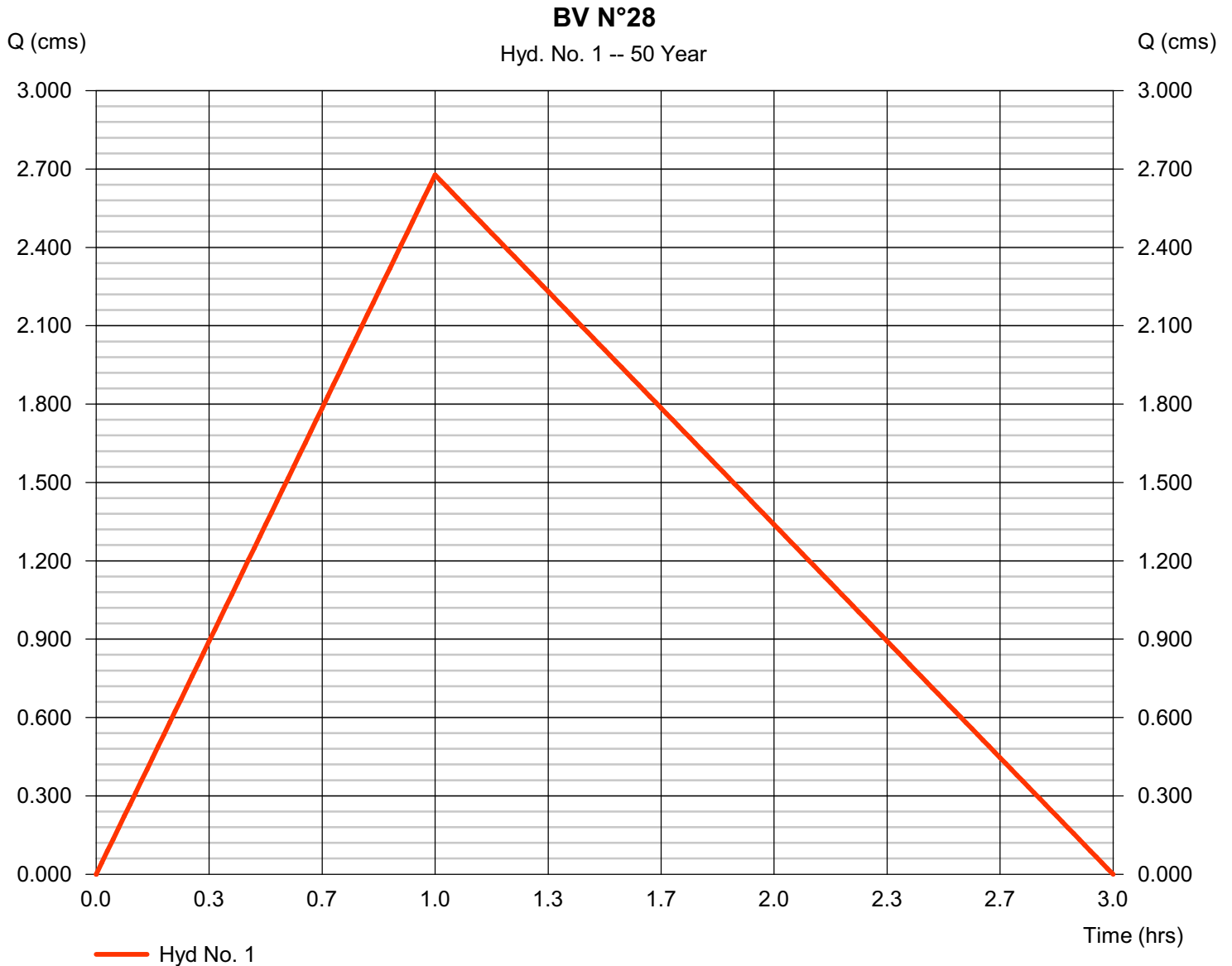
<b><u>Hyd.</u></b>	<b><u>Origin</u></b>	<b><u>Description</u></b>
1	Rational	BV N°28

# Hydrograph Report

## Hyd. No. 1

BV N°28

Hydrograph type	= Rational	Peak discharge	= 2.678 cms
Storm frequency	= 50 yrs	Time to peak	= 1.00 hrs
Time interval	= 1 min	Hyd. volume	= 14 460.6 cum
Drainage area	= 121.100 hectare	Runoff coeff.	= 0.23
Intensity	= 34.900 mm/hr	Tc by User	= 60.00 min
IDF Curve	= IDF_ALSACE.IDF	Asc/Rec limb fact	= 1/2





# Watershed Model Schematic

Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2010 by Autodesk, Inc. v9.25

BV N°29



## **Legend**

<b><u>Hyd.</u></b>	<b><u>Origin</u></b>	<b><u>Description</u></b>
1	Rational	BV N°29

# Hydrograph Report

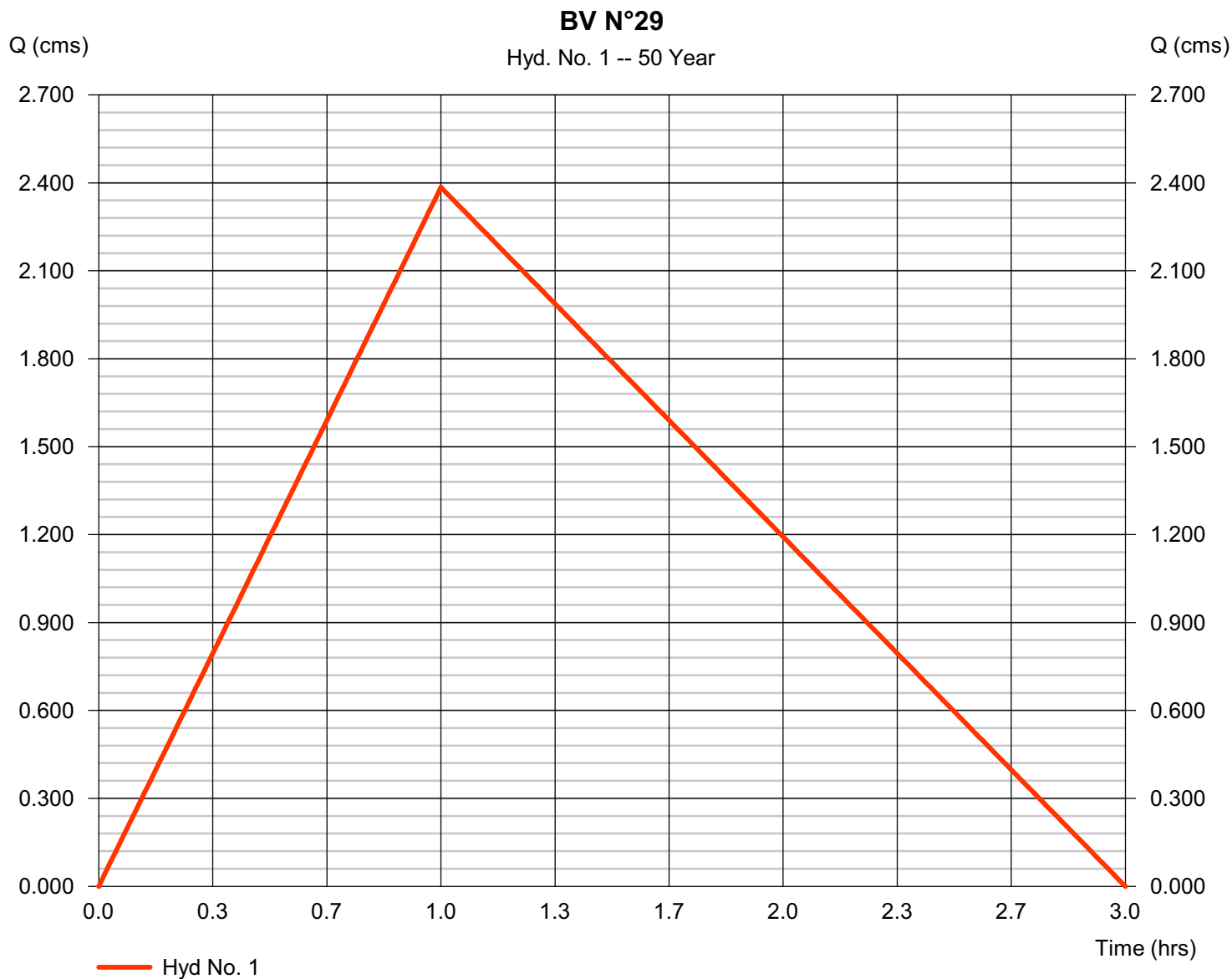
Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2010 by Autodesk, Inc. v9.25

vendredi, févr 5, 2010

## Hyd. No. 1

BV N°29

Hydrograph type	= Rational	Peak discharge	= 2.385 cms
Storm frequency	= 50 yrs	Time to peak	= 1.00 hrs
Time interval	= 1 min	Hyd. volume	= 12 878.2 cum
Drainage area	= 225.500 hectare	Runoff coeff.	= 0.11
Intensity	= 34.900 mm/hr	Tc by User	= 60.00 min
IDF Curve	= IDF_ALSACE.IDF	Asc/Rec limb fact	= 1/2



# Watershed Model Schematic

Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2010 by Autodesk, Inc. v9.25

BV N°30



## **Legend**

<b><u>Hyd.</u></b>	<b><u>Origin</u></b>	<b><u>Description</u></b>
1	Rational	BV N°30

# Hydrograph Report

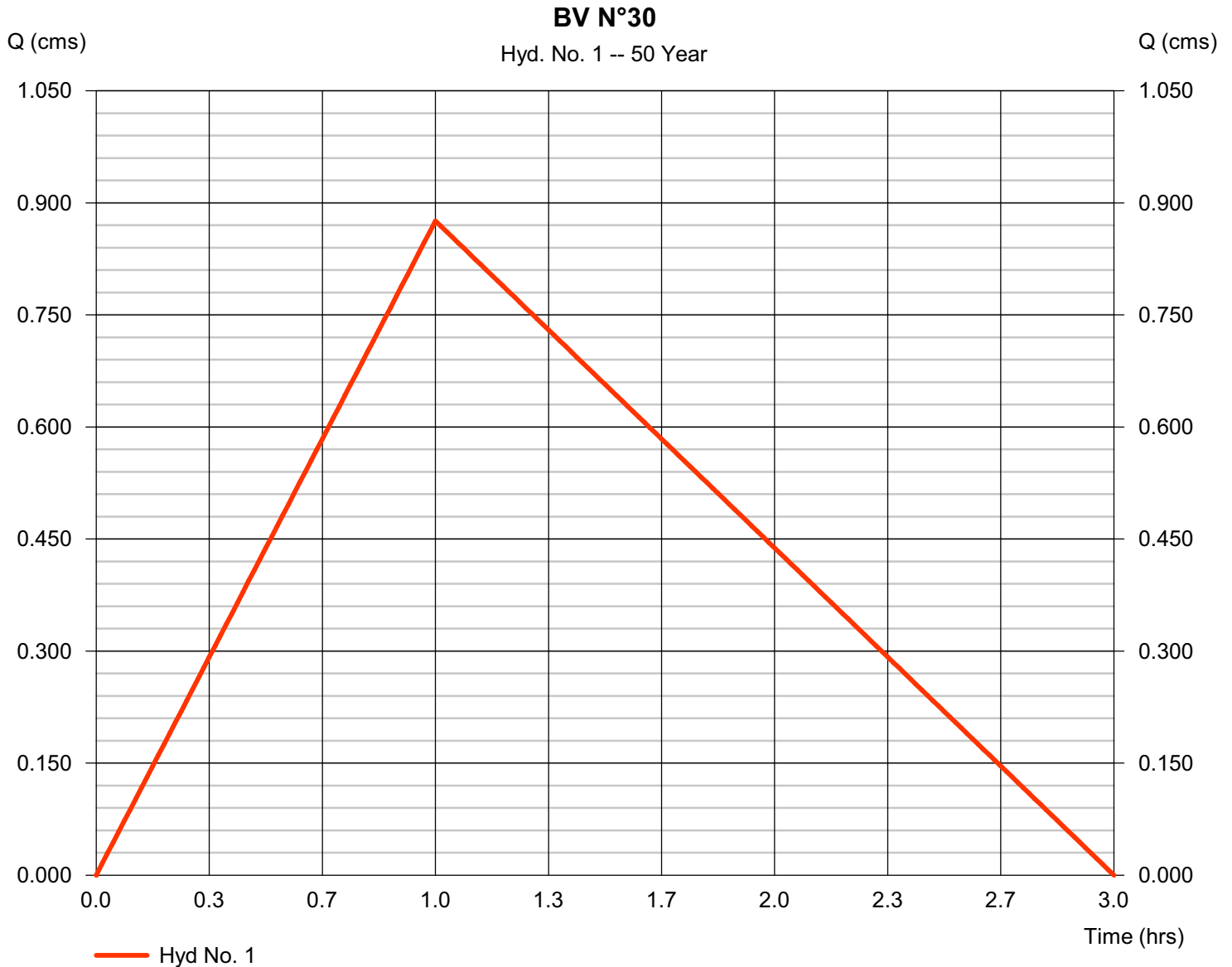
Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2010 by Autodesk, Inc. v9.25

vendredi, févr 5, 2010

## Hyd. No. 1

BV N°30

Hydrograph type	= Rational	Peak discharge	= 0.876 cms
Storm frequency	= 50 yrs	Time to peak	= 1.00 hrs
Time interval	= 1 min	Hyd. volume	= 4 729.7 cum
Drainage area	= 182.200 hectare	Runoff coeff.	= 0.05
Intensity	= 34.900 mm/hr	Tc by User	= 60.00 min
IDF Curve	= IDF_ALSACE.IDF	Asc/Rec limb fact	= 1/2



# Watershed Model Schematic

Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2010 by Autodesk, Inc. v9.25

BV N°31



## **Legend**

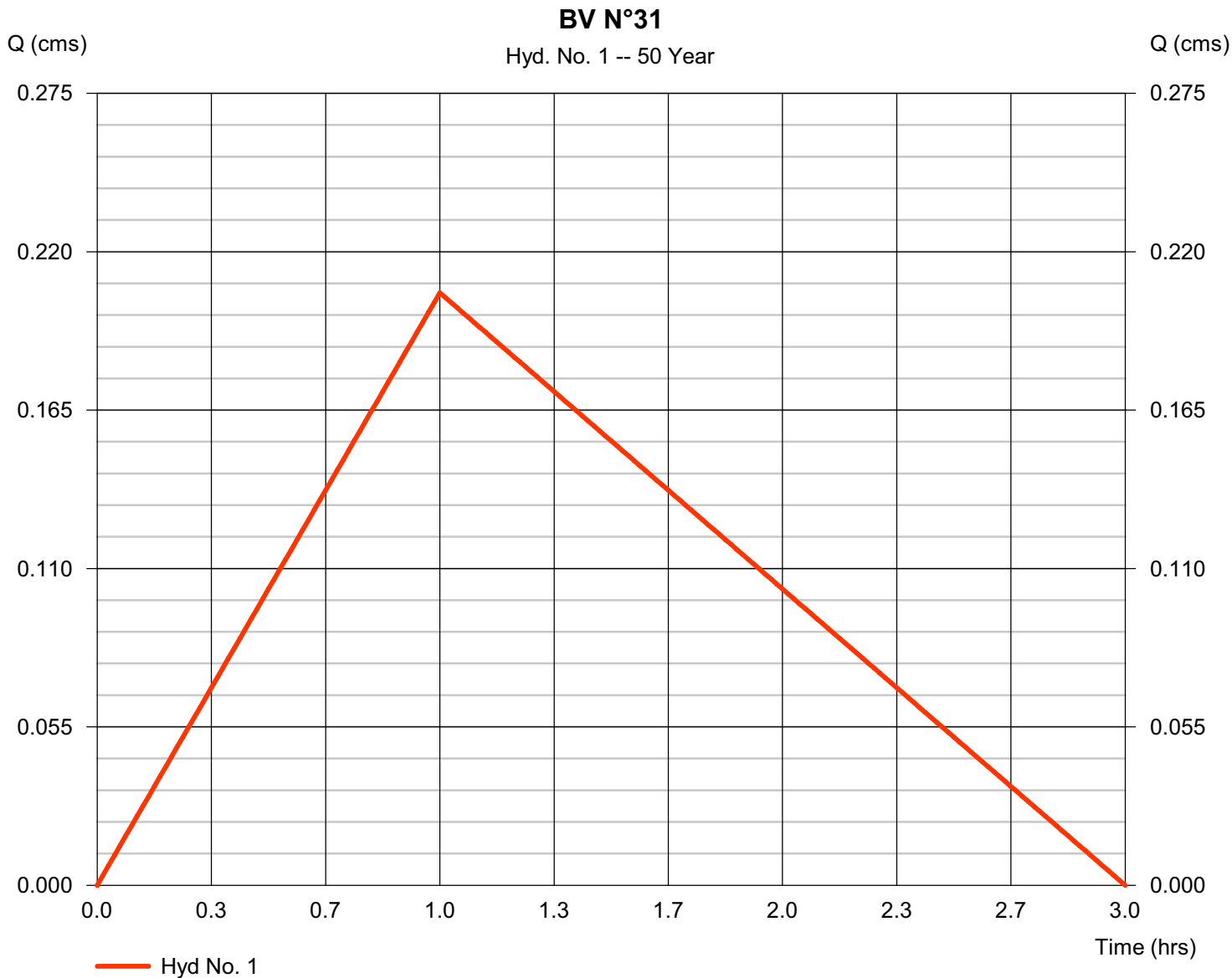
<b><u>Hyd.</u></b>	<b><u>Origin</u></b>	<b><u>Description</u></b>
1	Rational	BV N°31

# Hydrograph Report

## Hyd. No. 1

BV N°31

Hydrograph type	= Rational	Peak discharge	= 0.206 cms
Storm frequency	= 50 yrs	Time to peak	= 1.00 hrs
Time interval	= 1 min	Hyd. volume	= 1 111.0 cum
Drainage area	= 107.000 hectare	Runoff coeff.	= 0.02
Intensity	= 34.900 mm/hr	Tc by User	= 60.00 min
IDF Curve	= IDF_ALSACE.IDF	Asc/Rec limb fact	= 1/2



# Watershed Model Schematic

Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2010 by Autodesk, Inc. v9.25

BV N°34



## Legend

<u>Hyd.</u>	<u>Origin</u>	<u>Description</u>
1	Rational	BV N°34

# Hydrograph Report

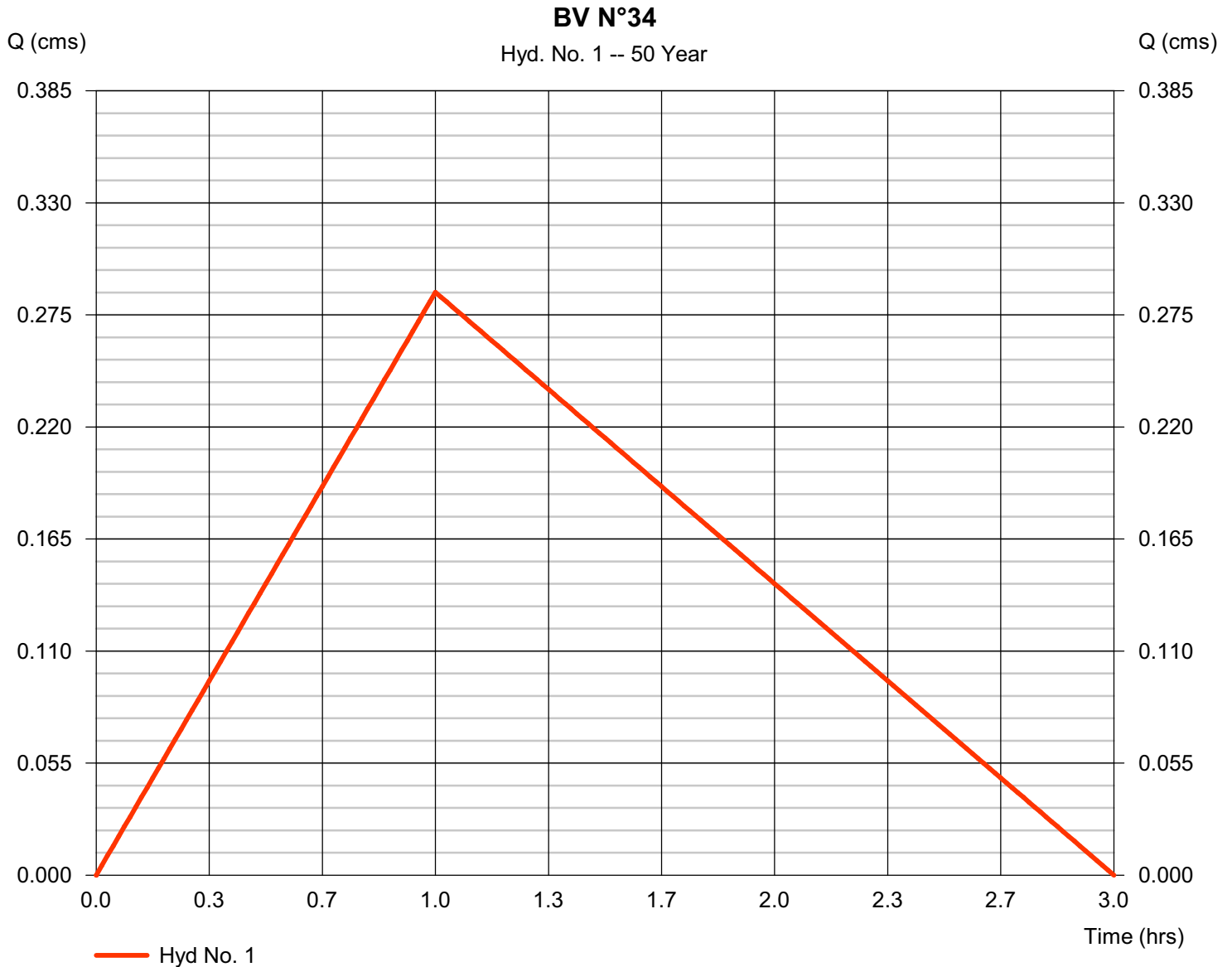
Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2010 by Autodesk, Inc. v9.25

vendredi, févr 5, 2010

## Hyd. No. 1

BV N°34

Hydrograph type	= Rational	Peak discharge	= 0.286 cms
Storm frequency	= 50 yrs	Time to peak	= 1.00 hrs
Time interval	= 1 min	Hyd. volume	= 1 545.1 cum
Drainage area	= 37.200 hectare	Runoff coeff.	= 0.08
Intensity	= 34.900 mm/hr	Tc by User	= 60.00 min
IDF Curve	= IDF_ALSACE.IDF	Asc/Rec limb fact	= 1/2





# Watershed Model Schematic

Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2010 by Autodesk, Inc. v9.25

BV N°35



## Legend

<u>Hyd.</u>	<u>Origin</u>	<u>Description</u>
1	Rational	BV N°35

# Hydrograph Report

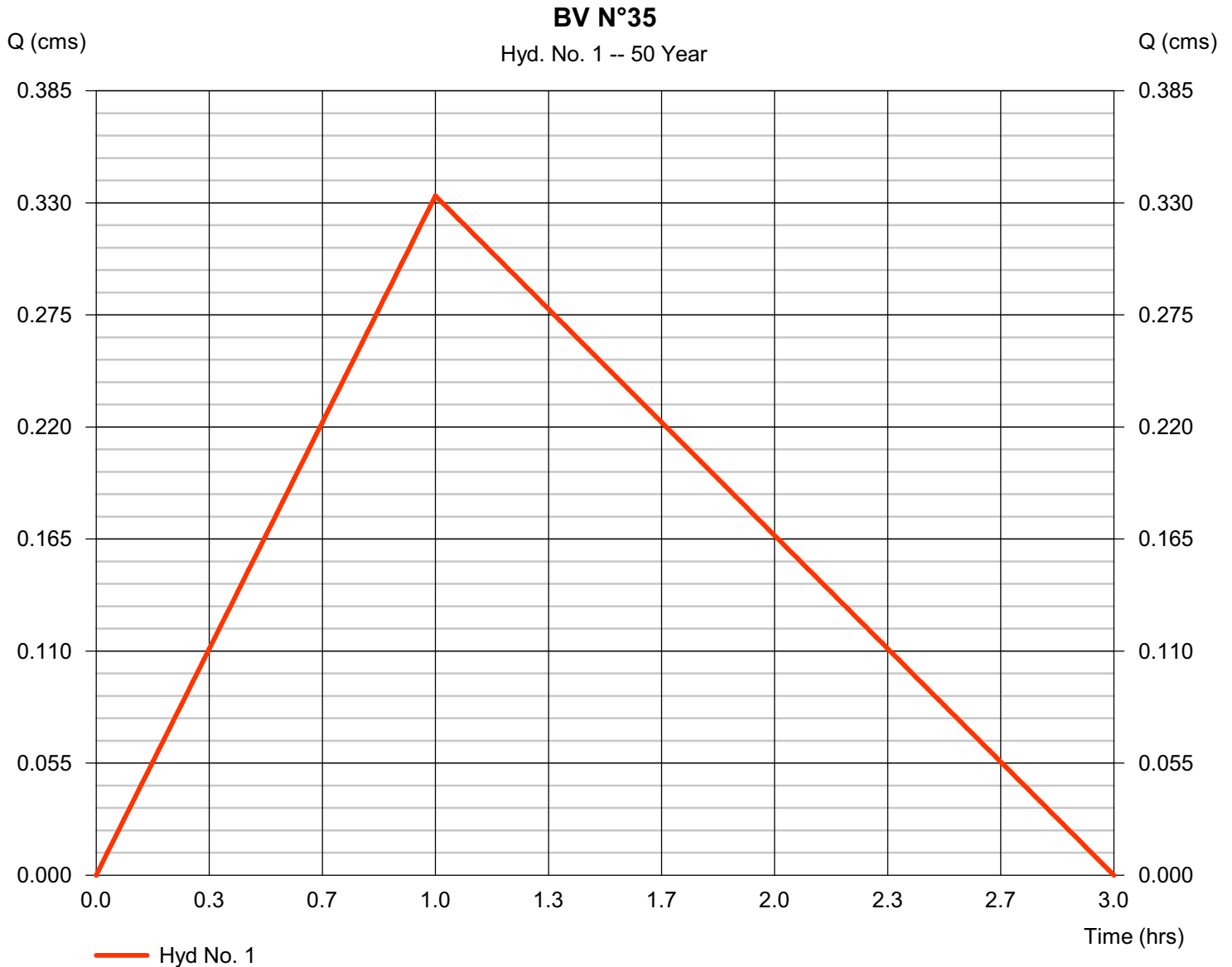
Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2010 by Autodesk, Inc. v9.25

vendredi, févr 5, 2010

## Hyd. No. 1

BV N°35

Hydrograph type	= Rational	Peak discharge	= 0.333 cms
Storm frequency	= 50 yrs	Time to peak	= 1.00 hrs
Time interval	= 1 min	Hyd. volume	= 1 800.5 cum
Drainage area	= 20.400 hectare	Runoff coeff.	= 0.17
Intensity	= 34.900 mm/hr	Tc by User	= 60.00 min
IDF Curve	= IDF_ALSACE.IDF	Asc/Rec limb fact	= 1/2



# Watershed Model Schematic

Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2010 by Autodesk, Inc. v9.25

BV N°36



## **Legend**

<b><u>Hyd.</u></b>	<b><u>Origin</u></b>	<b><u>Description</u></b>
1	Rational	BV N°36

# Hydrograph Report

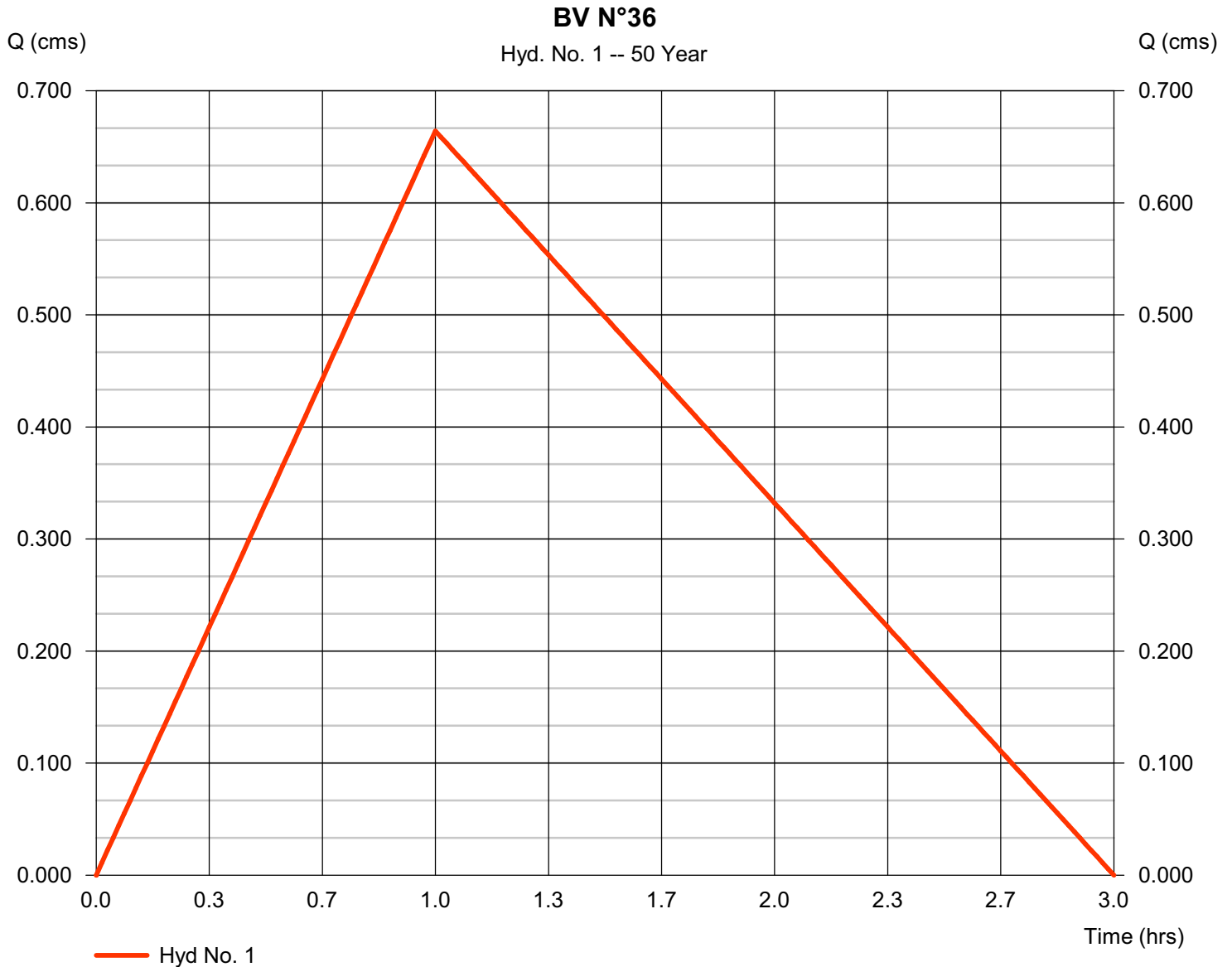
Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2010 by Autodesk, Inc. v9.25

vendredi, févr 5, 2010

## Hyd. No. 1

BV N°36

Hydrograph type	= Rational	Peak discharge	= 0.664 cms
Storm frequency	= 50 yrs	Time to peak	= 1.00 hrs
Time interval	= 1 min	Hyd. volume	= 3 586.5 cum
Drainage area	= 62.800 hectare	Runoff coeff.	= 0.11
Intensity	= 34.900 mm/hr	Tc by User	= 60.00 min
IDF Curve	= IDF_ALSACE.IDF	Asc/Rec limb fact	= 1/2



# Watershed Model Schematic

Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2010 by Autodesk, Inc. v9.25

BV N°37



## Legend

<u>Hyd.</u>	<u>Origin</u>	<u>Description</u>
1	Rational	BV N°37

# Hydrograph Report

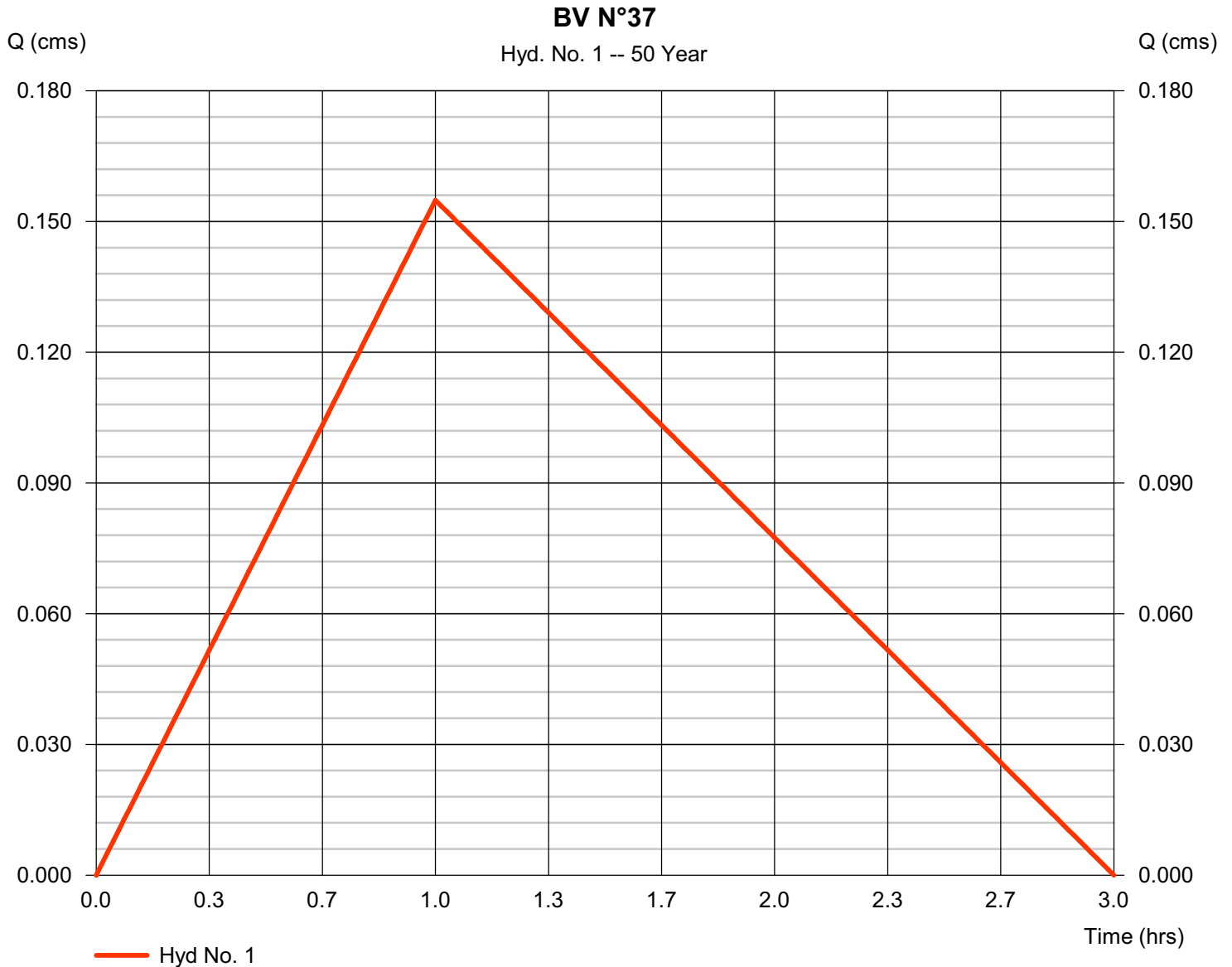
Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2010 by Autodesk, Inc. v9.25

vendredi, févr 5, 2010

## Hyd. No. 1

BV N°37

Hydrograph type	= Rational	Peak discharge	= 0.155 cms
Storm frequency	= 50 yrs	Time to peak	= 1.00 hrs
Time interval	= 1 min	Hyd. volume	= 836.4 cum
Drainage area	= 17.900 hectare	Runoff coeff.	= 0.09
Intensity	= 34.900 mm/hr	Tc by User	= 60.00 min
IDF Curve	= IDF_ALSACE.IDF	Asc/Rec limb fact	= 1/2



# Watershed Model Schematic

Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2010 by Autodesk, Inc. v9.25

BV N°38



## **Legend**

<b><u>Hyd.</u></b>	<b><u>Origin</u></b>	<b><u>Description</u></b>
1	Rational	BV N°38

# Hydrograph Report

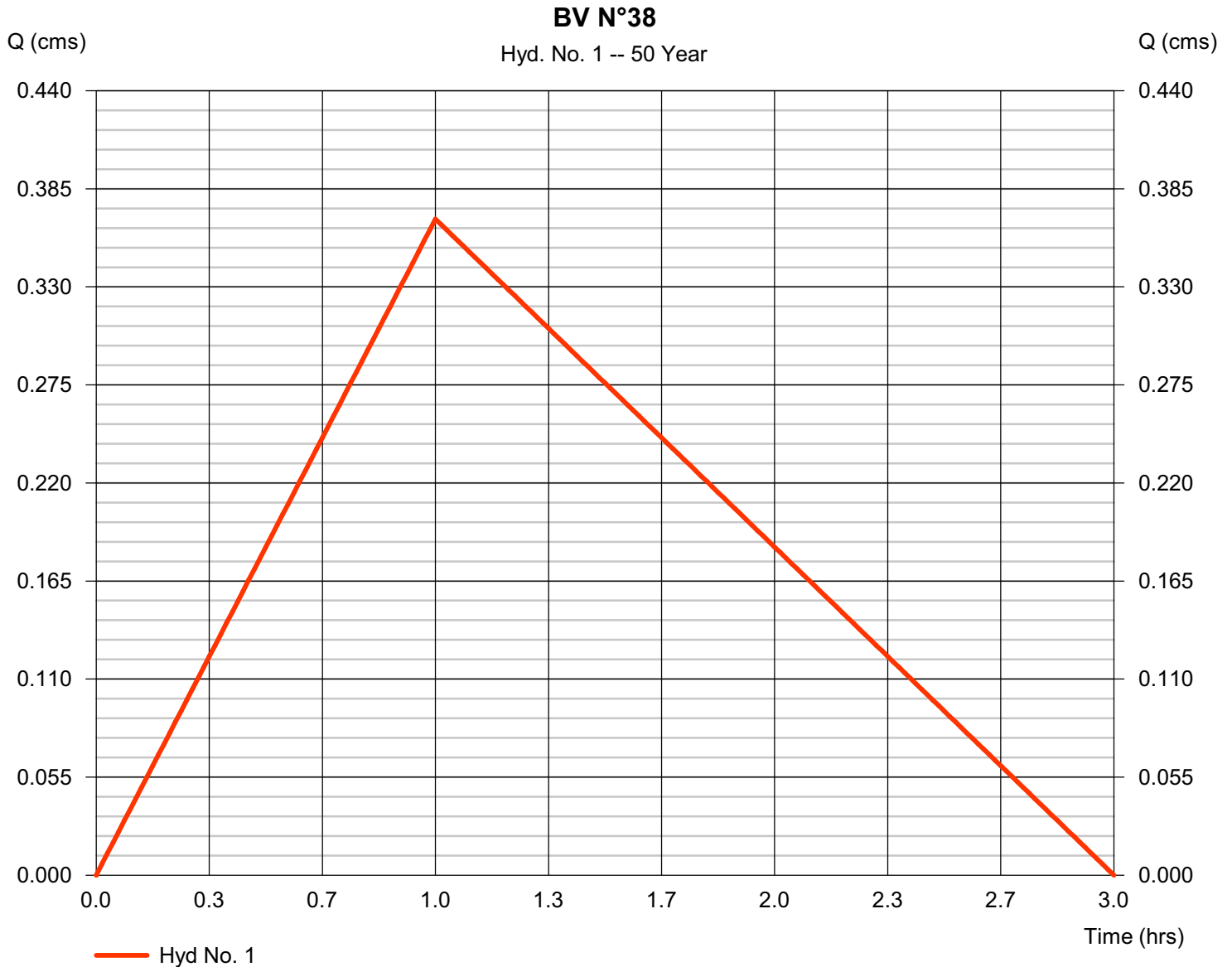
Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2010 by Autodesk, Inc. v9.25

vendredi, févr 5, 2010

## Hyd. No. 1

BV N°38

Hydrograph type	= Rational	Peak discharge	= 0.368 cms
Storm frequency	= 50 yrs	Time to peak	= 1.00 hrs
Time interval	= 1 min	Hyd. volume	= 1 987.4 cum
Drainage area	= 17.400 hectare	Runoff coeff.	= 0.22
Intensity	= 34.900 mm/hr	Tc by User	= 60.00 min
IDF Curve	= IDF_ALSACE.IDF	Asc/Rec limb fact	= 1/2





# Watershed Model Schematic

Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2010 by Autodesk, Inc. v9.25

BV N°39



## **Legend**

<b><u>Hyd.</u></b>	<b><u>Origin</u></b>	<b><u>Description</u></b>
1	Rational	BV N°39

# Hydrograph Report

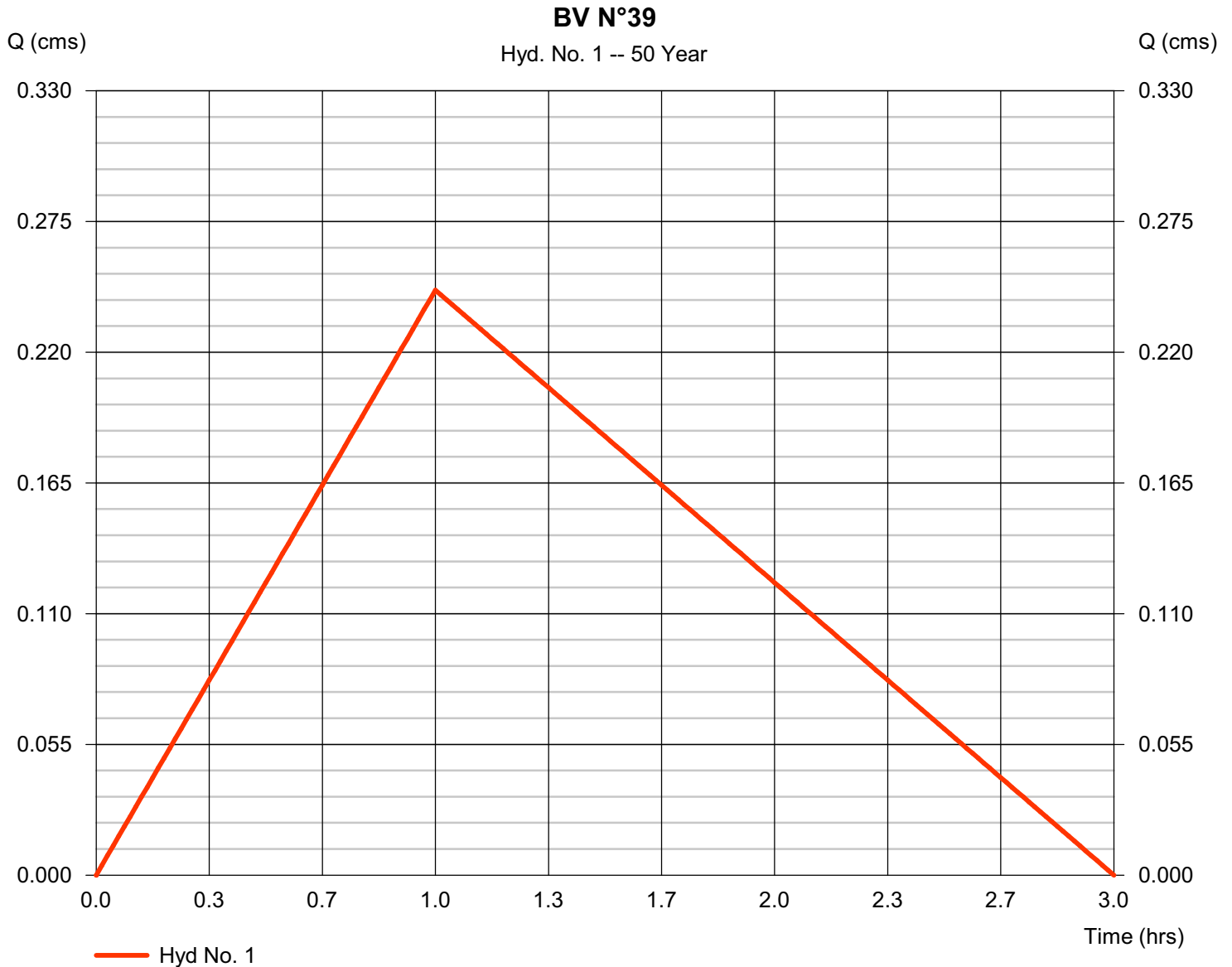
Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2010 by Autodesk, Inc. v9.25

vendredi, févr 5, 2010

## Hyd. No. 1

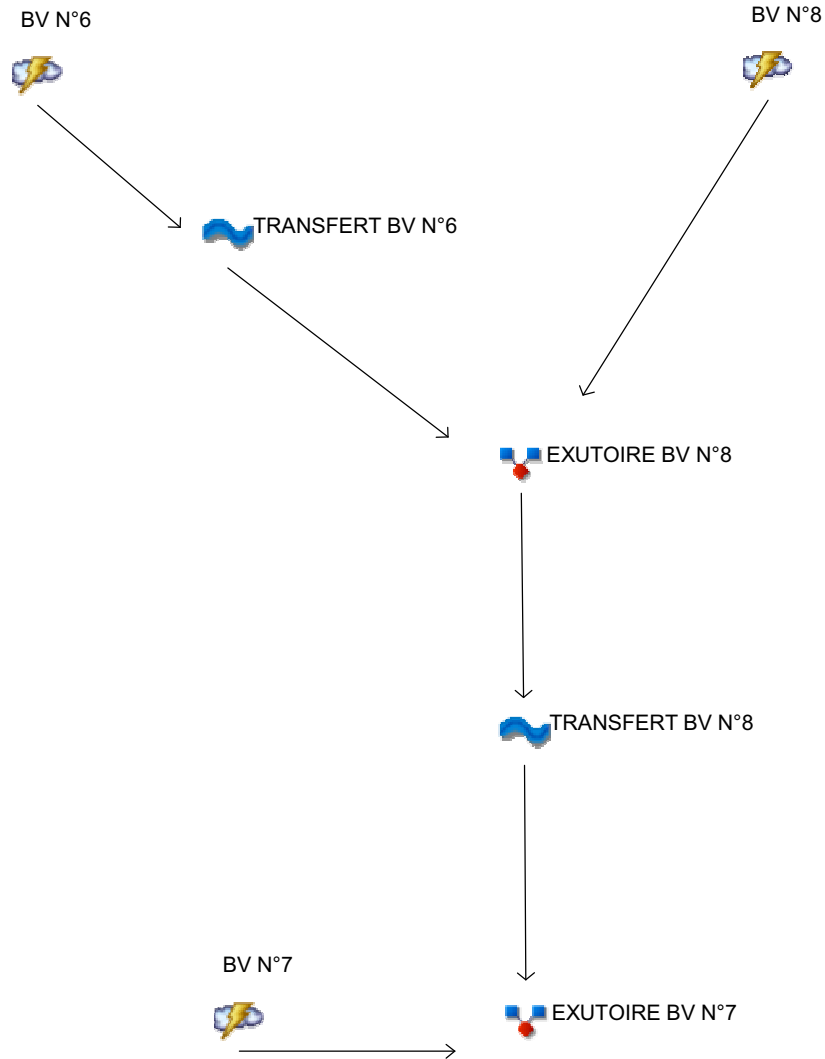
BV N°39

Hydrograph type	= Rational	Peak discharge	= 0.246 cms
Storm frequency	= 50 yrs	Time to peak	= 1.00 hrs
Time interval	= 1 min	Hyd. volume	= 1 329.1 cum
Drainage area	= 12.800 hectare	Runoff coeff.	= 0.2
Intensity	= 34.900 mm/hr	Tc by User	= 60.00 min
IDF Curve	= IDF_ALSACE.IDF	Asc/Rec limb fact	= 1/2



# Watershed Model Schematic

Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2010 by Autodesk, Inc. v9.25



## Legend

Hyd. Origin	Description
1	Rational BV N°6
2	Rational BV N°7
3	Reach TRANSFERT BV N°6
4	Rational BV N°8
5	Combine EXUTOIRE BV N°8
6	Reach TRANSFERT BV N°8
7	Combine EXUTOIRE BV N°7

# Hydrograph Report

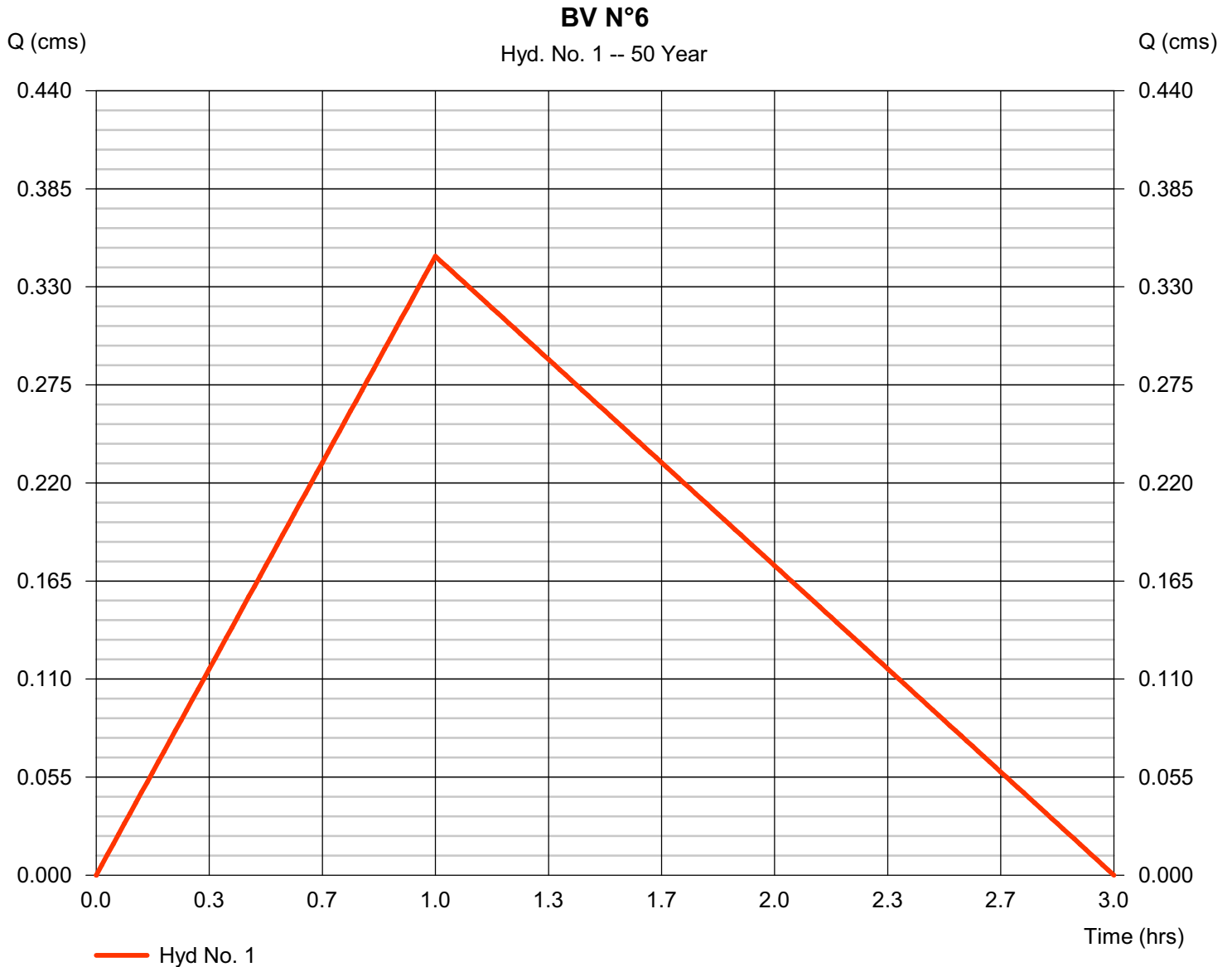
Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2010 by Autodesk, Inc. v9.25

vendredi, févr 5, 2010

## Hyd. No. 1

BV N°6

Hydrograph type	= Rational	Peak discharge	= 0.347 cms
Storm frequency	= 50 yrs	Time to peak	= 1.00 hrs
Time interval	= 1 min	Hyd. volume	= 1 874.7 cum
Drainage area	= 15.700 hectare	Runoff coeff.	= 0.23
Intensity	= 34.900 mm/hr	Tc by User	= 60.00 min
IDF Curve	= IDF_ALSACE.IDF	Asc/Rec limb fact	= 1/2

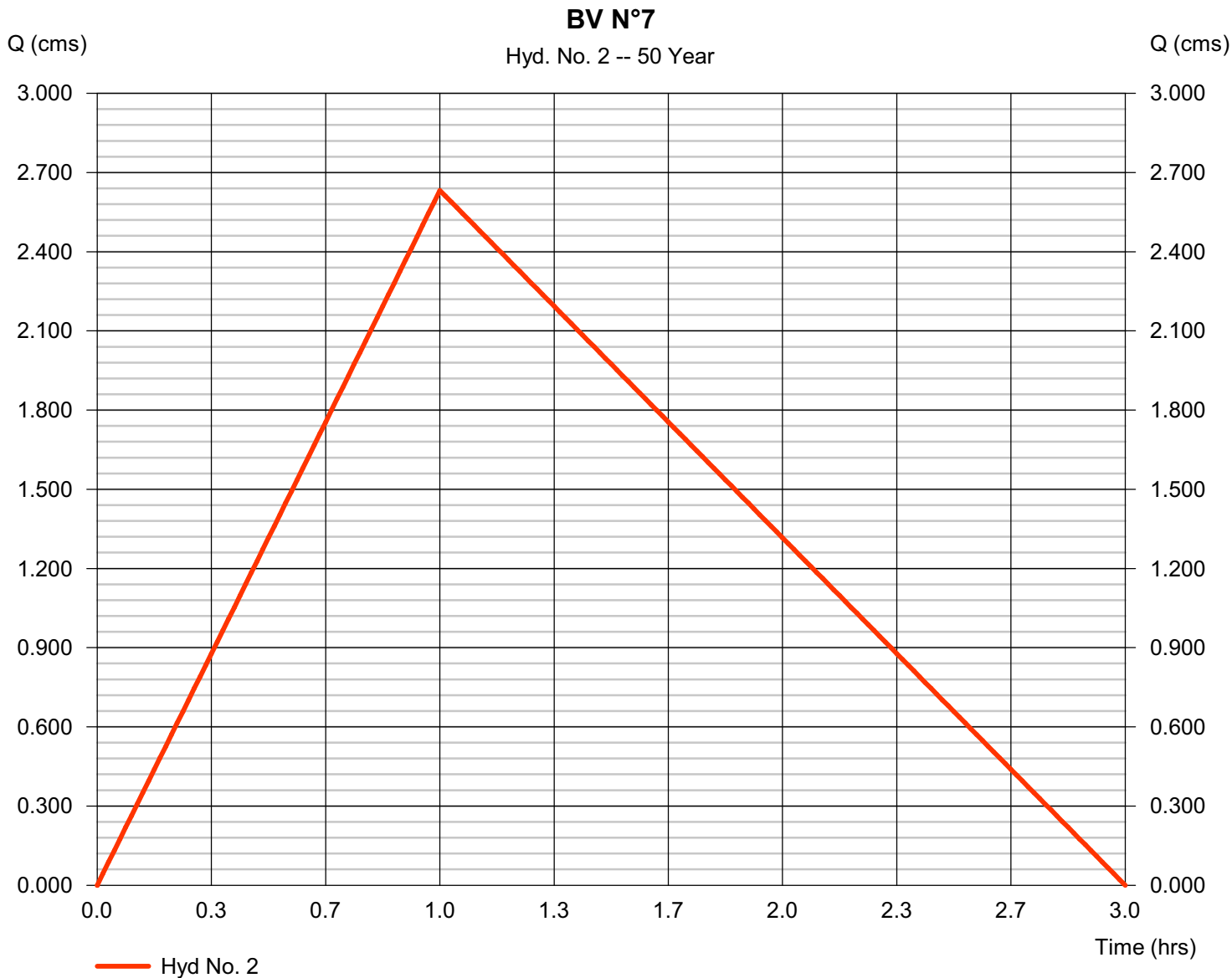


# Hydrograph Report

## Hyd. No. 2

BV N°7

Hydrograph type	= Rational	Peak discharge	= 2.632 cms
Storm frequency	= 50 yrs	Time to peak	= 1.00 hrs
Time interval	= 1 min	Hyd. volume	= 14 215.0 cum
Drainage area	= 136.900 hectare	Runoff coeff.	= 0.2
Intensity	= 34.900 mm/hr	Tc by User	= 60.00 min
IDF Curve	= IDF_ALSACE.IDF	Asc/Rec limb fact	= 1/2



# Hydrograph Report

Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2010 by Autodesk, Inc. v9.25

vendredi, févr 5, 2010

## Hyd. No. 3

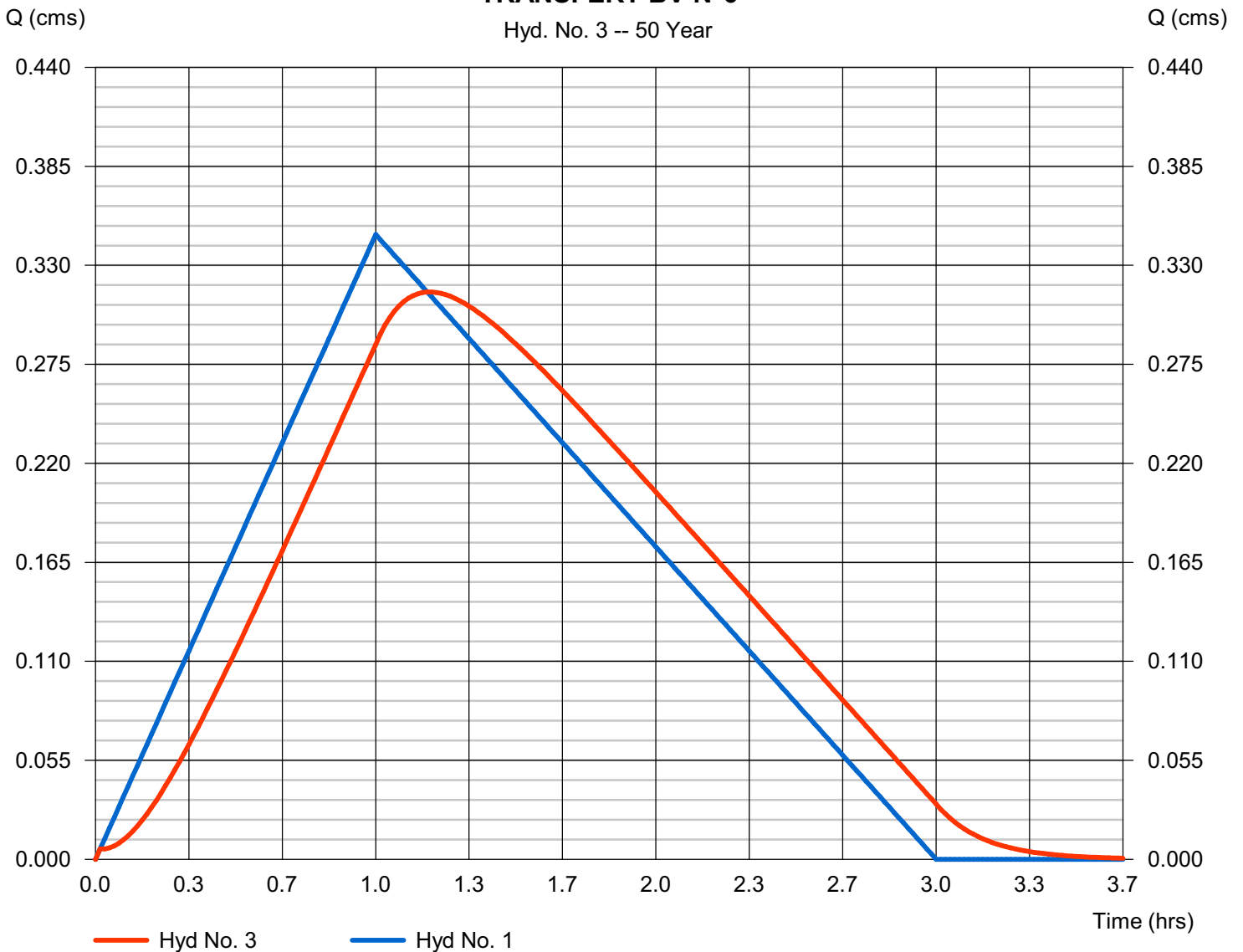
### TRANSFERT BV N°6

Hydrograph type	= Reach	Peak discharge	= 0.315 cms
Storm frequency	= 50 yrs	Time to peak	= 1.20 hrs
Time interval	= 1 min	Hyd. volume	= 1 878.3 cum
Inflow hyd. No.	= 1 - BV N°6	Section type	= Rectangular
Reach length	= 1278.0 m	Channel slope	= 3.7 %
Manning's n	= 0.025	Bottom width	= 2.0 m
Side slope	= 0.0:1	Max. depth	= 4.0 m
Rating curve x	= 3.269	Rating curve m	= 1.426
Ave. velocity	= 1.48 m/s	Routing coeff.	= 0.0943

Modified Att-Kin routing method used.

### TRANSFERT BV N°6

Hyd. No. 3 -- 50 Year



# Hydrograph Report

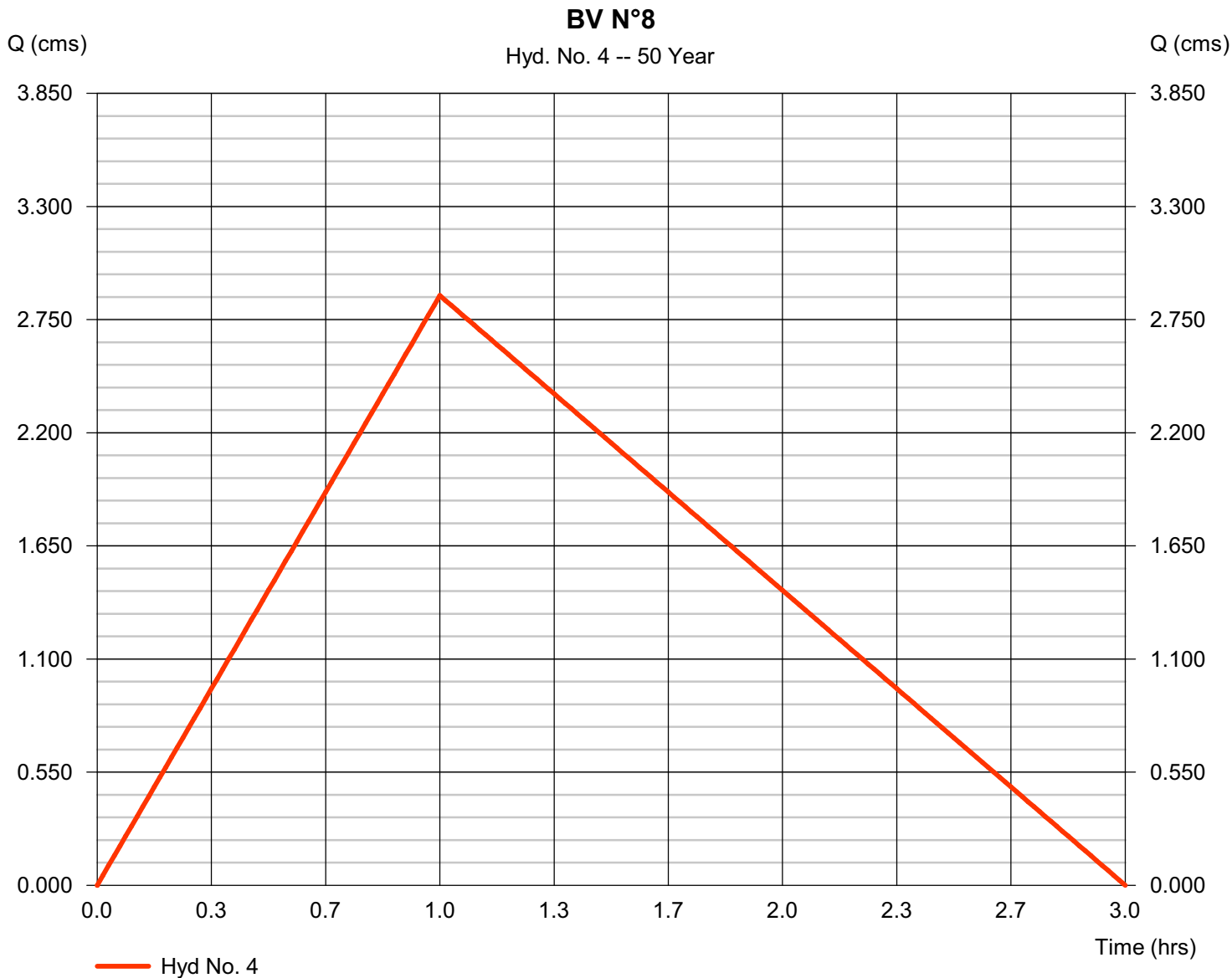
Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2010 by Autodesk, Inc. v9.25

vendredi, févr 5, 2010

## Hyd. No. 4

BV N°8

Hydrograph type	= Rational	Peak discharge	= 2.867 cms
Storm frequency	= 50 yrs	Time to peak	= 1.00 hrs
Time interval	= 1 min	Hyd. volume	= 15 481.8 cum
Drainage area	= 149.100 hectare	Runoff coeff.	= 0.2
Intensity	= 34.900 mm/hr	Tc by User	= 60.00 min
IDF Curve	= IDF_ALSACE.IDF	Asc/Rec limb fact	= 1/2



# Hydrograph Report

Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2010 by Autodesk, Inc. v9.25

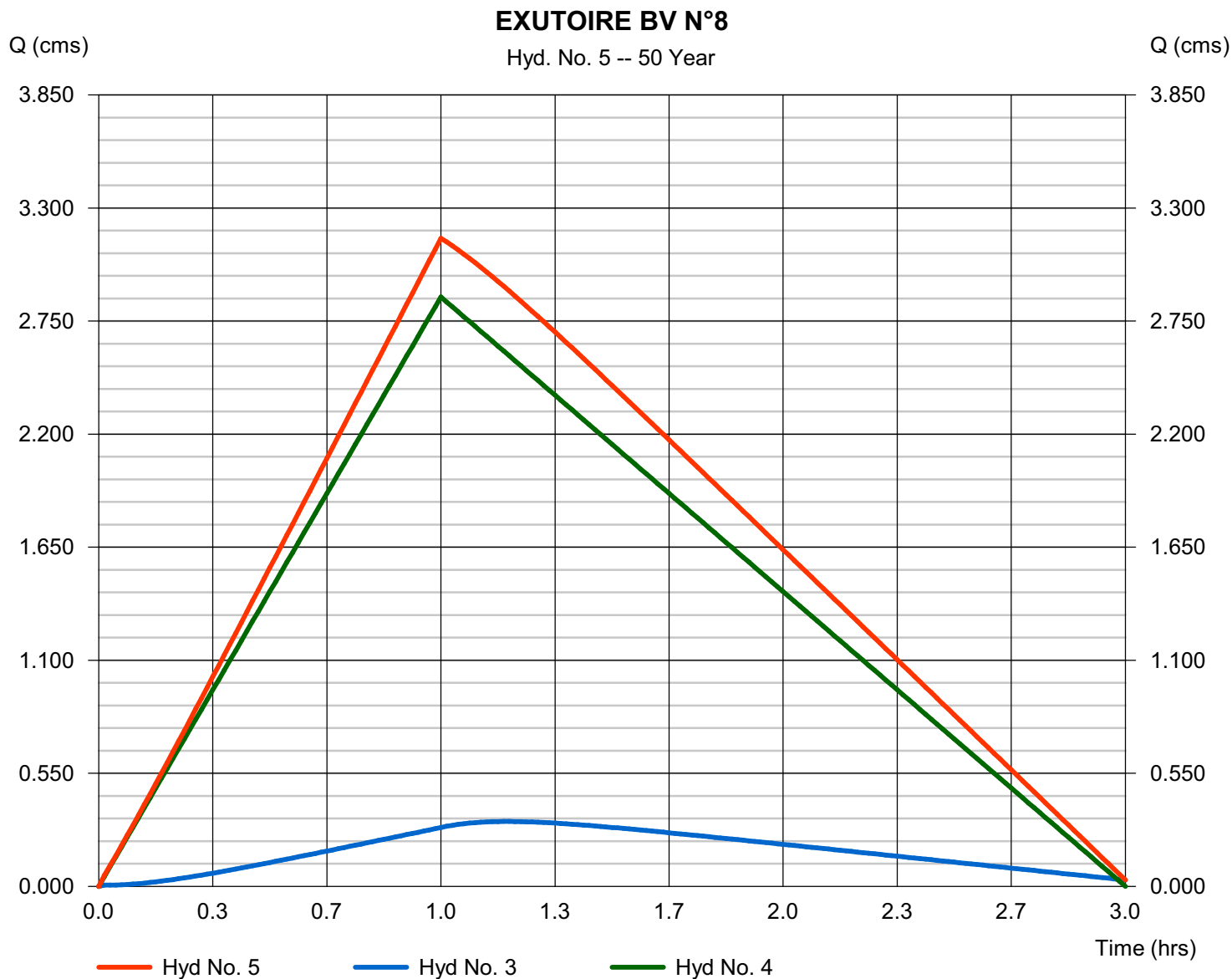
vendredi, févr 5, 2010

## Hyd. No. 5

EXUTOIRE BV N°8

Hydrograph type = Combine  
 Storm frequency = 50 yrs  
 Time interval = 1 min  
 Inflow hyds. = 3, 4

Peak discharge = 3.153 cms  
 Time to peak = 1.00 hrs  
 Hyd. volume = 17 360.1 cum  
 Contrib. drain. area = 149.100 hectare





# Hydrograph Report

Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2010 by Autodesk, Inc. v9.25

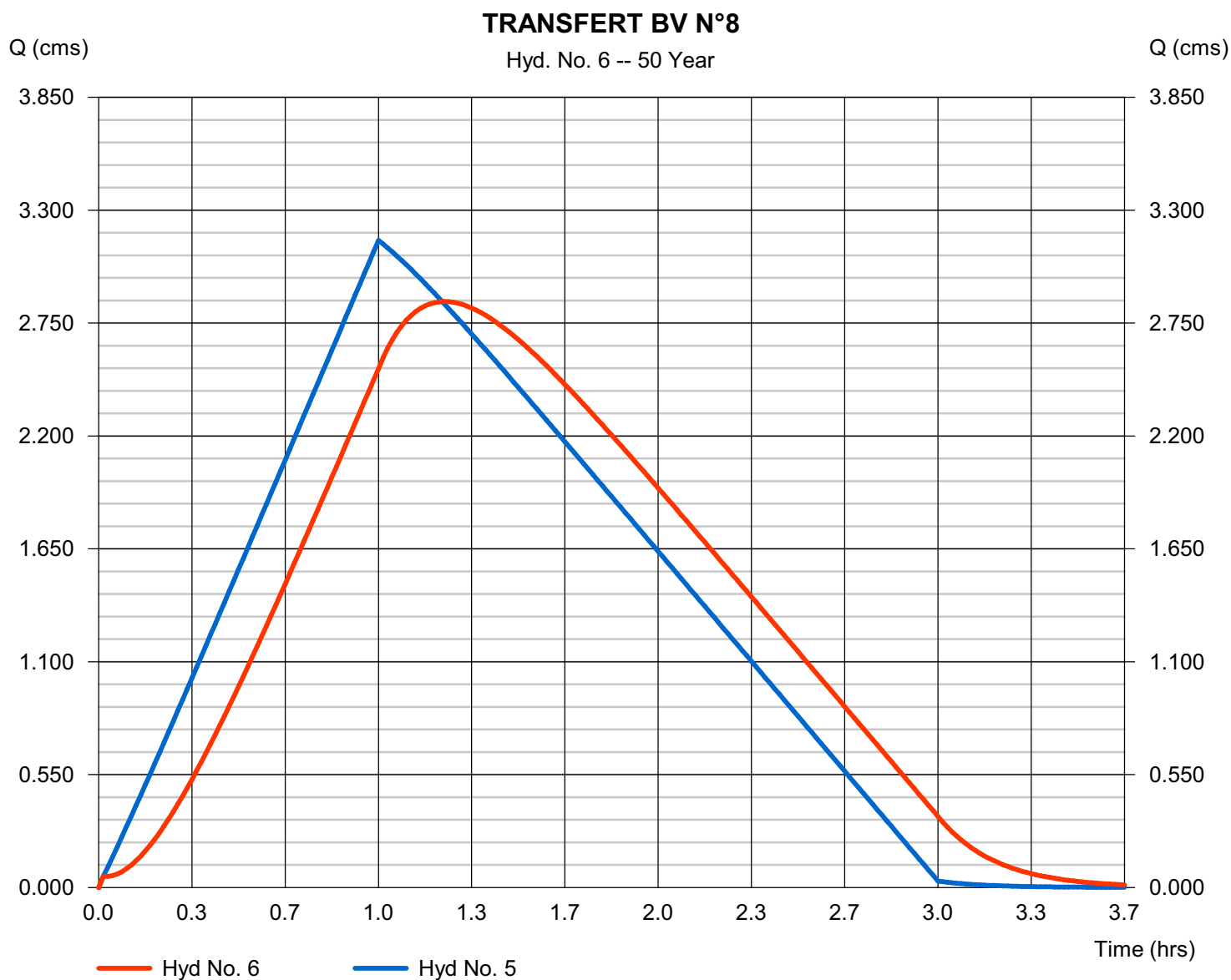
vendredi, févr 5, 2010

## Hyd. No. 6

### TRANSFERT BV N°8

Hydrograph type	= Reach	Peak discharge	= 2.855 cms
Storm frequency	= 50 yrs	Time to peak	= 1.23 hrs
Time interval	= 1 min	Hyd. volume	= 17 397.8 cum
Inflow hyd. No.	= 5 - EXUTOIRE BV N°8	Section type	= Rectangular
Reach length	= 1705.0 m	Channel slope	= 0.9 %
Manning's n	= 0.025	Bottom width	= 2.0 m
Side slope	= 0.0:1	Max. depth	= 4.0 m
Rating curve x	= 1.648	Rating curve m	= 1.426
Ave. velocity	= 1.77 m/s	Routing coeff.	= 0.0850

Modified Att-Kin routing method used.



# Hydrograph Report

Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2010 by Autodesk, Inc. v9.25

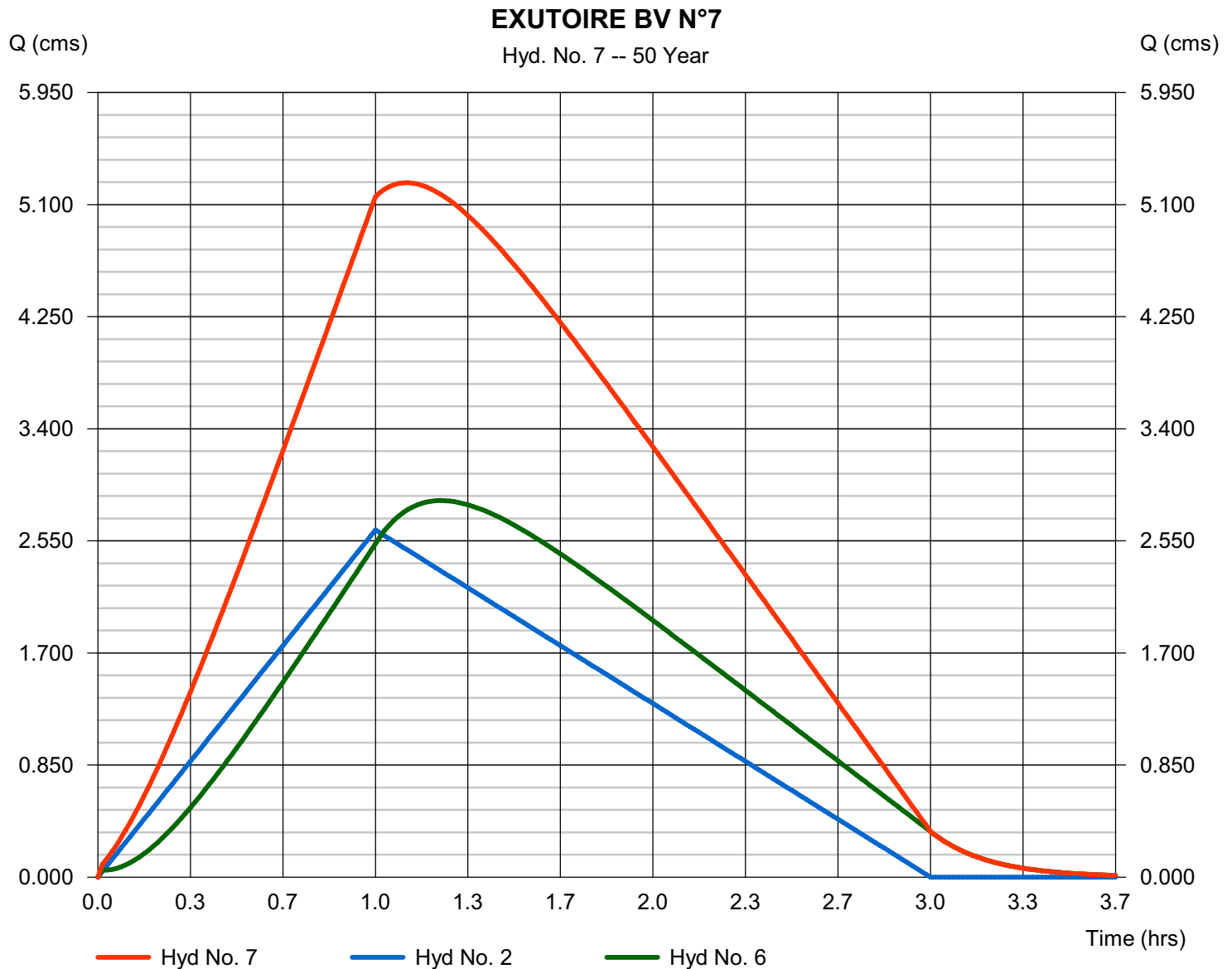
vendredi, févr 5, 2010

## Hyd. No. 7

EXUTOIRE BV N°7

Hydrograph type = Combine  
 Storm frequency = 50 yrs  
 Time interval = 1 min  
 Inflow hyds. = 2, 6

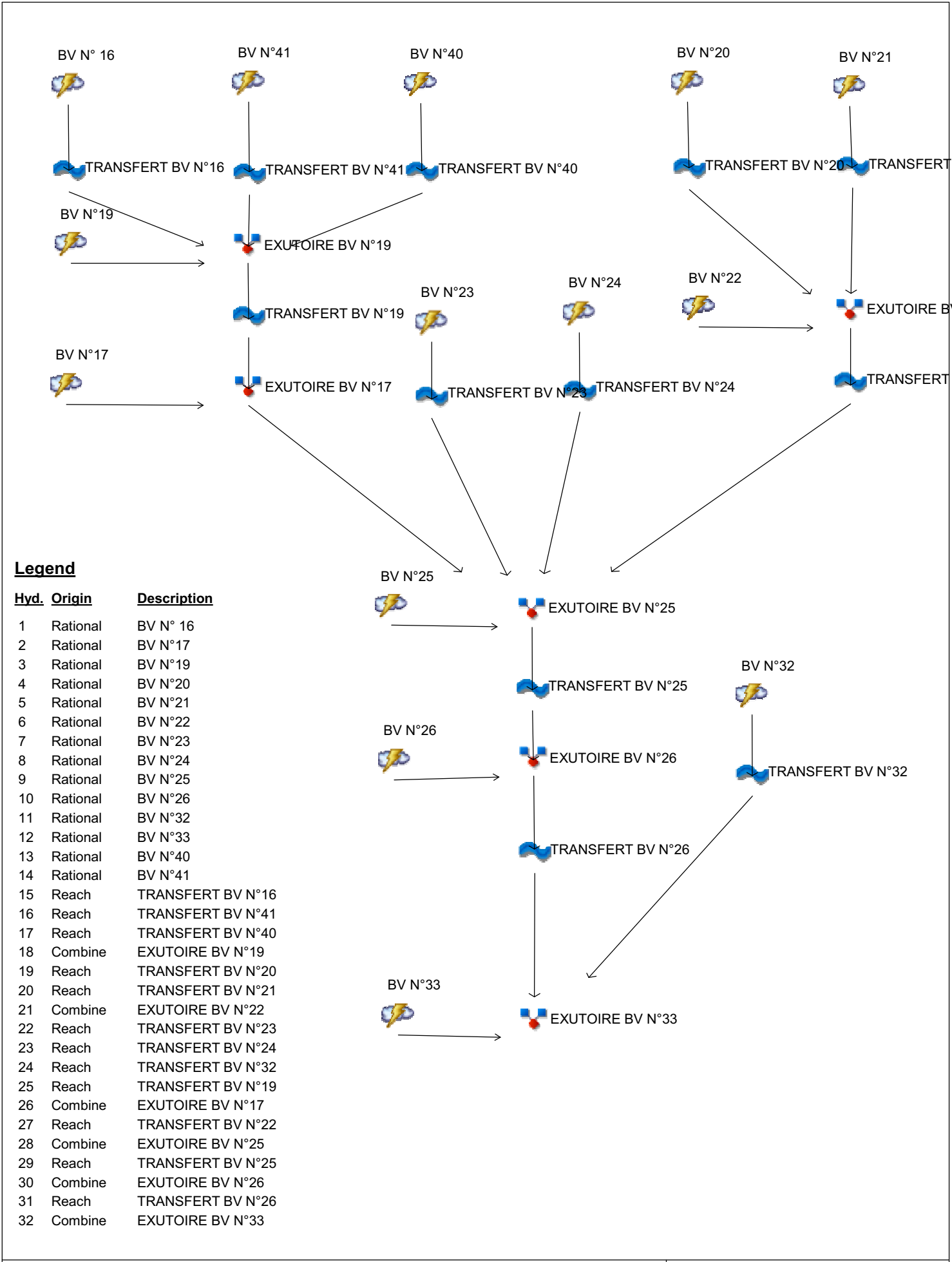
Peak discharge = 5.266 cms  
 Time to peak = 1.12 hrs  
 Hyd. volume = 31 612.8 cum  
 Contrib. drain. area = 136.900 hectare



<b>Watershed Model Schematic.....</b>	<b>1</b>
<b>50 - Year</b>	
<b>Hydrograph Reports.....</b>	<b>2</b>
Hydrograph No. 1, Rational, BV N°6.....	2
Hydrograph No. 2, Rational, BV N°7.....	3
Hydrograph No. 3, Reach, TRANSFERT BV N°6.....	4
Hydrograph No. 4, Rational, BV N°8.....	5
Hydrograph No. 5, Combine, EXUTOIRE BV N°8.....	6
Hydrograph No. 6, Reach, TRANSFERT BV N°8.....	7
Hydrograph No. 7, Combine, EXUTOIRE BV N°7.....	8

# Watershed Model Schematic

Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2010 by Autodesk, Inc. v9.25



**Legend**

Hyd.	Origin	Description
1	Rational	BV N° 16
2	Rational	BV N°17
3	Rational	BV N°19
4	Rational	BV N°20
5	Rational	BV N°21
6	Rational	BV N°22
7	Rational	BV N°23
8	Rational	BV N°24
9	Rational	BV N°25
10	Rational	BV N°26
11	Rational	BV N°32
12	Rational	BV N°33
13	Rational	BV N°40
14	Rational	BV N°41
15	Reach	TRANSFERT BV N°16
16	Reach	TRANSFERT BV N°41
17	Reach	TRANSFERT BV N°40
18	Combine	EXUTOIRE BV N°19
19	Reach	TRANSFERT BV N°20
20	Reach	TRANSFERT BV N°21
21	Combine	EXUTOIRE BV N°22
22	Reach	TRANSFERT BV N°23
23	Reach	TRANSFERT BV N°24
24	Reach	TRANSFERT BV N°32
25	Reach	TRANSFERT BV N°19
26	Combine	EXUTOIRE BV N°17
27	Reach	TRANSFERT BV N°22
28	Combine	EXUTOIRE BV N°25
29	Reach	TRANSFERT BV N°25
30	Combine	EXUTOIRE BV N°26
31	Reach	TRANSFERT BV N°26
32	Combine	EXUTOIRE BV N°33

# Hydrograph Report

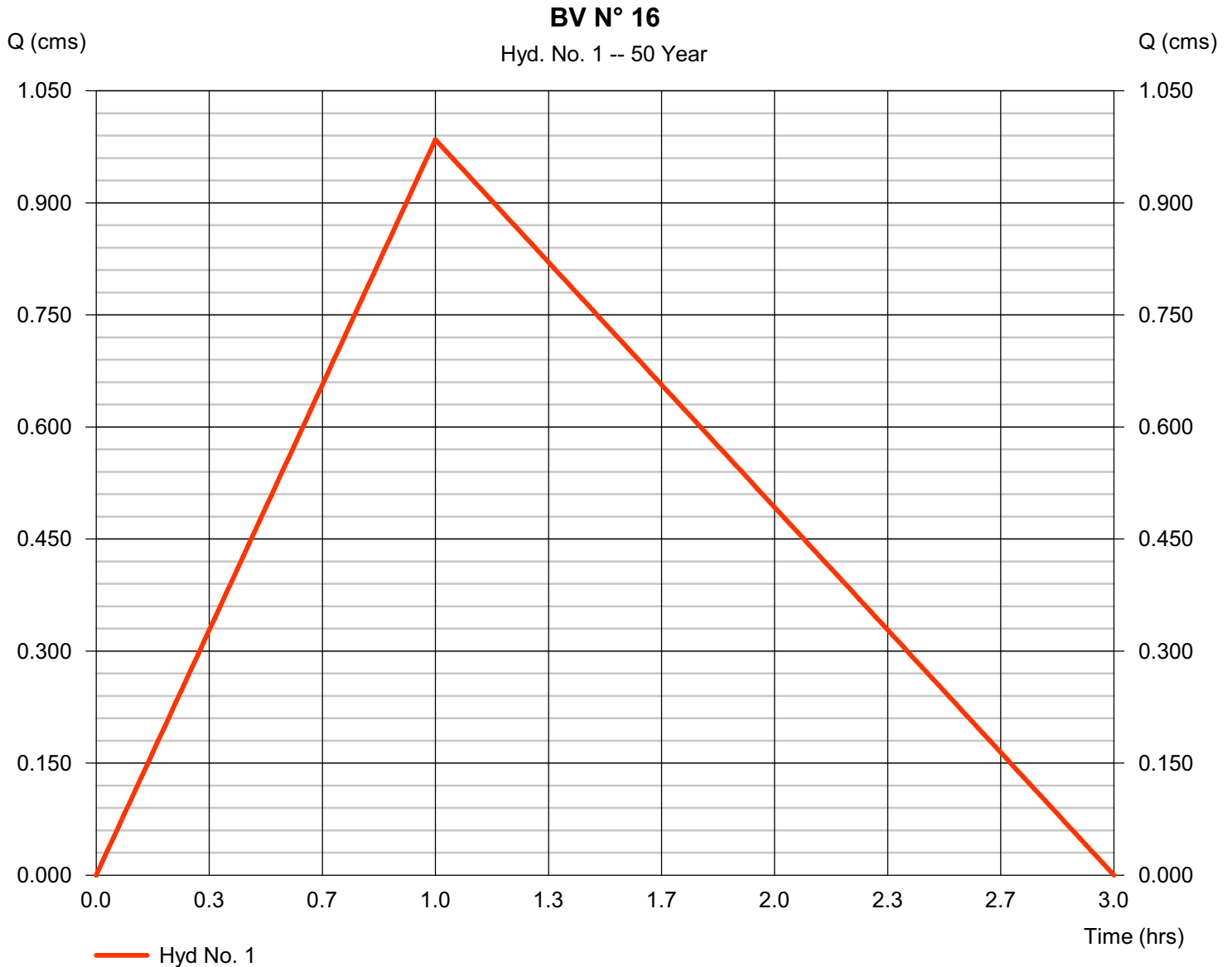
Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2010 by Autodesk, Inc. v9.25

vendredi, févr 5, 2010

## Hyd. No. 1

BV N° 16

Hydrograph type	= Rational	Peak discharge	= 0.985 cms
Storm frequency	= 50 yrs	Time to peak	= 1.00 hrs
Time interval	= 1 min	Hyd. volume	= 5 316.9 cum
Drainage area	= 53.900 hectare	Runoff coeff.	= 0.19
Intensity	= 34.900 mm/hr	Tc by User	= 60.00 min
IDF Curve	= IDF_ALSACE.IDF	Asc/Rec limb fact	= 1/2



# Hydrograph Report

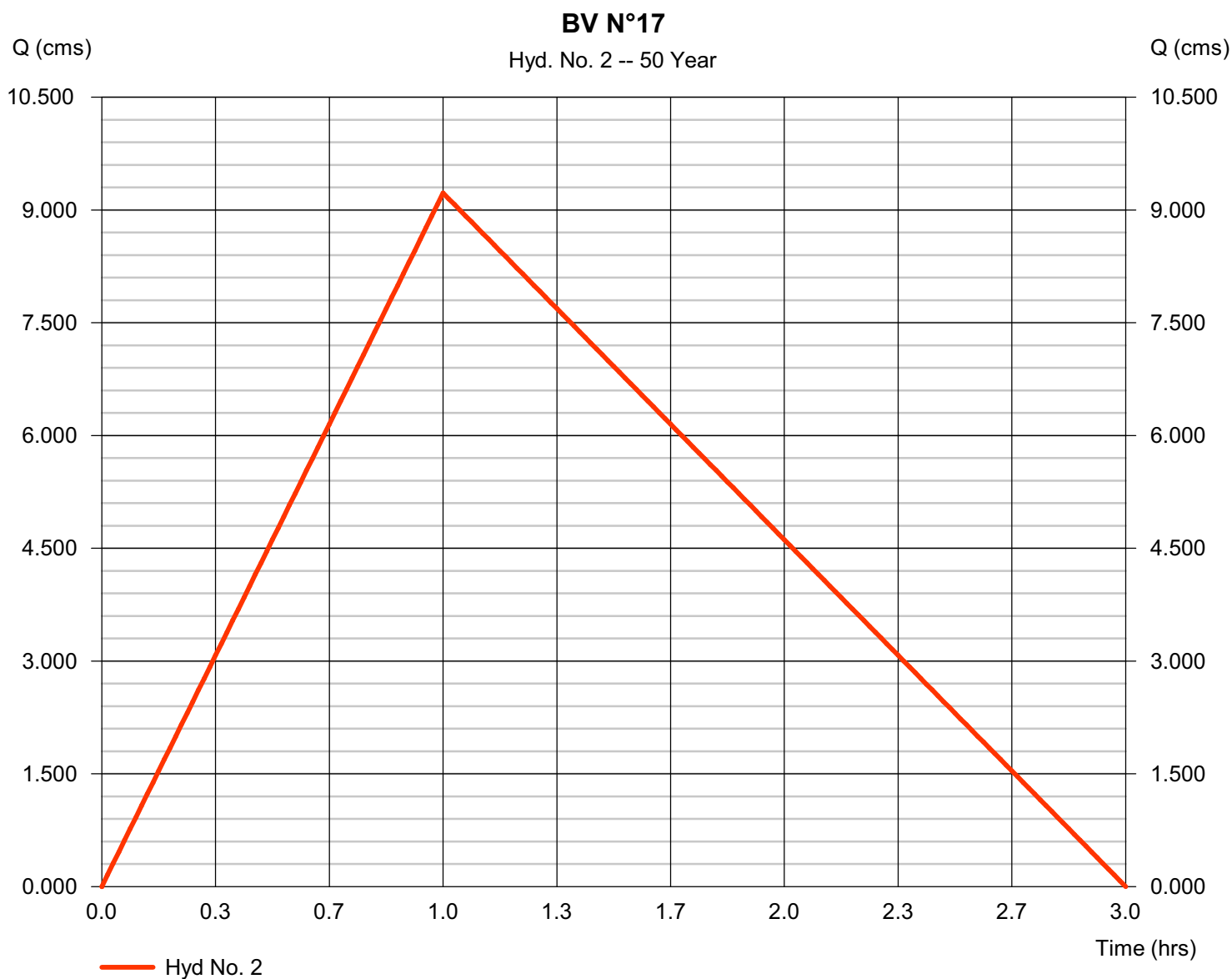
Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2010 by Autodesk, Inc. v9.25

vendredi, févr 5, 2010

## Hyd. No. 2

BV N°17

Hydrograph type	= Rational	Peak discharge	= 9.226 cms
Storm frequency	= 50 yrs	Time to peak	= 1.00 hrs
Time interval	= 1 min	Hyd. volume	= 49 818.1 cum
Drainage area	= 417.200 hectare	Runoff coeff.	= 0.23
Intensity	= 34.900 mm/hr	Tc by User	= 60.00 min
IDF Curve	= IDF_ALSACE.IDF	Asc/Rec limb fact	= 1/2

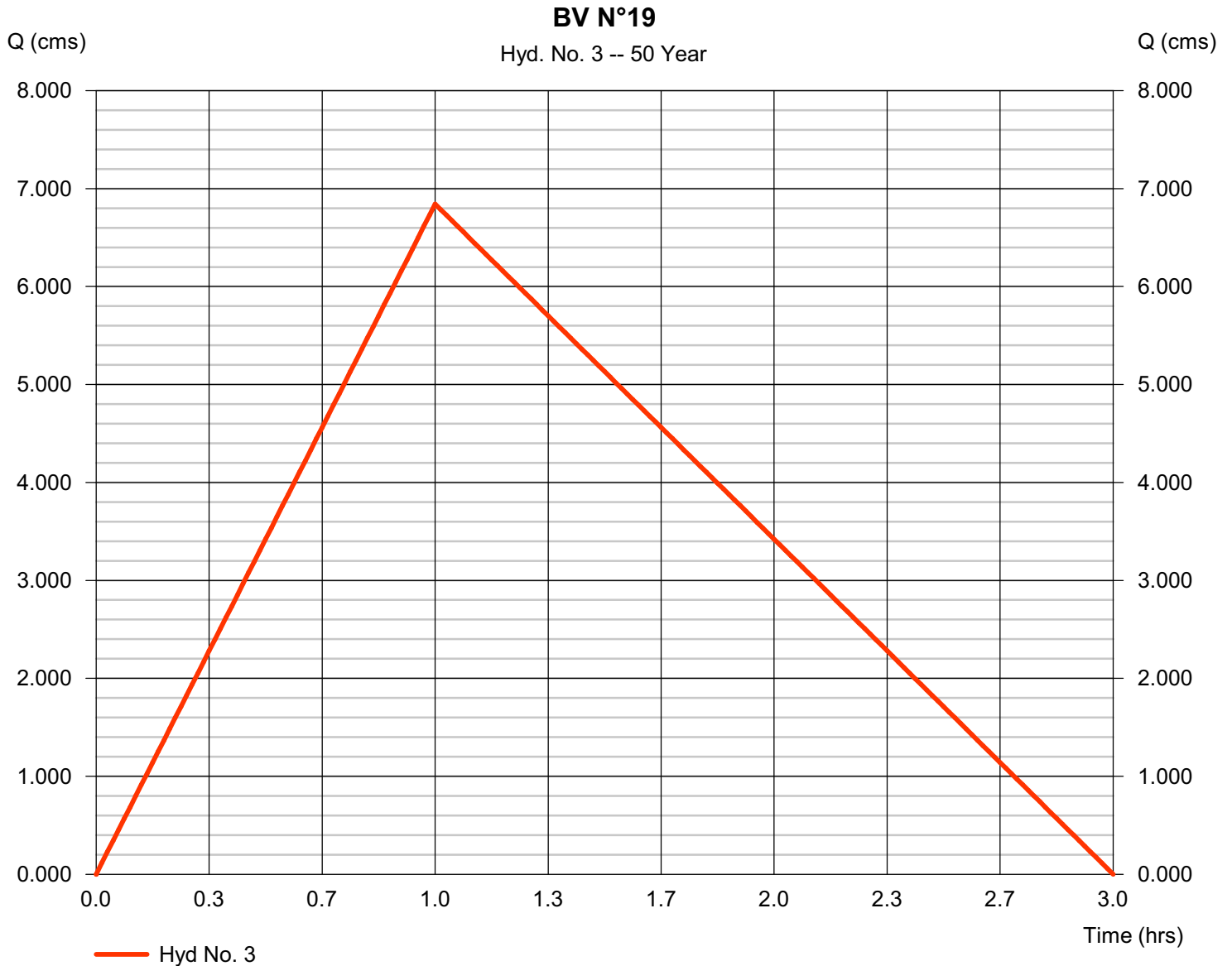


# Hydrograph Report

## Hyd. No. 3

BV N°19

Hydrograph type	= Rational	Peak discharge	= 6.843 cms
Storm frequency	= 50 yrs	Time to peak	= 1.00 hrs
Time interval	= 1 min	Hyd. volume	= 36 949.8 cum
Drainage area	= 323.500 hectare	Runoff coeff.	= 0.22
Intensity	= 34.900 mm/hr	Tc by User	= 60.00 min
IDF Curve	= IDF_ALSACE.IDF	Asc/Rec limb fact	= 1/2



# Hydrograph Report

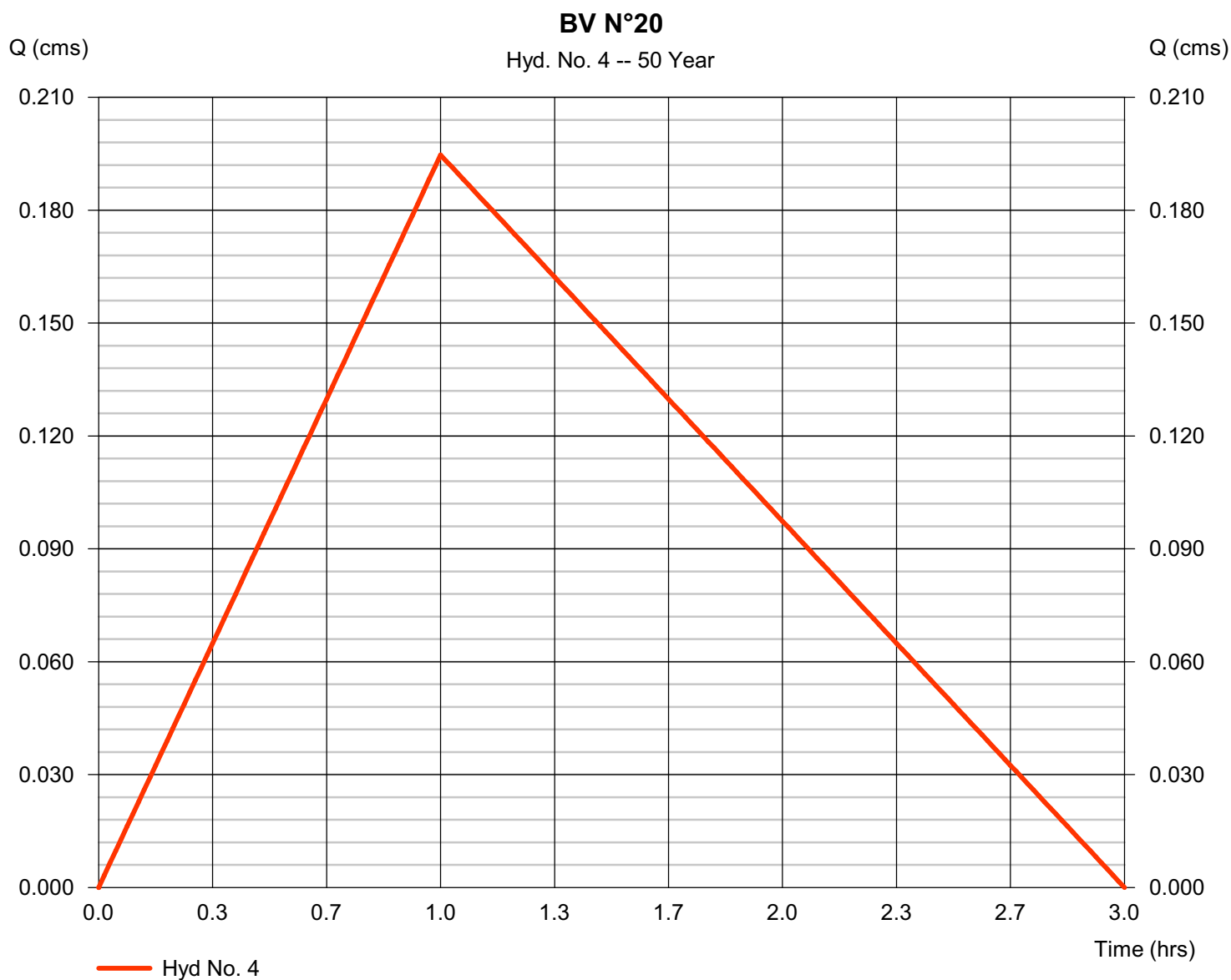
Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2010 by Autodesk, Inc. v9.25

vendredi, févr 5, 2010

## Hyd. No. 4

BV N°20

Hydrograph type	= Rational	Peak discharge	= 0.195 cms
Storm frequency	= 50 yrs	Time to peak	= 1.00 hrs
Time interval	= 1 min	Hyd. volume	= 1 051.3 cum
Drainage area	= 8.100 hectare	Runoff coeff.	= 0.25
Intensity	= 34.900 mm/hr	Tc by User	= 60.00 min
IDF Curve	= IDF_ALSACE.IDF	Asc/Rec limb fact	= 1/2





# Hydrograph Report

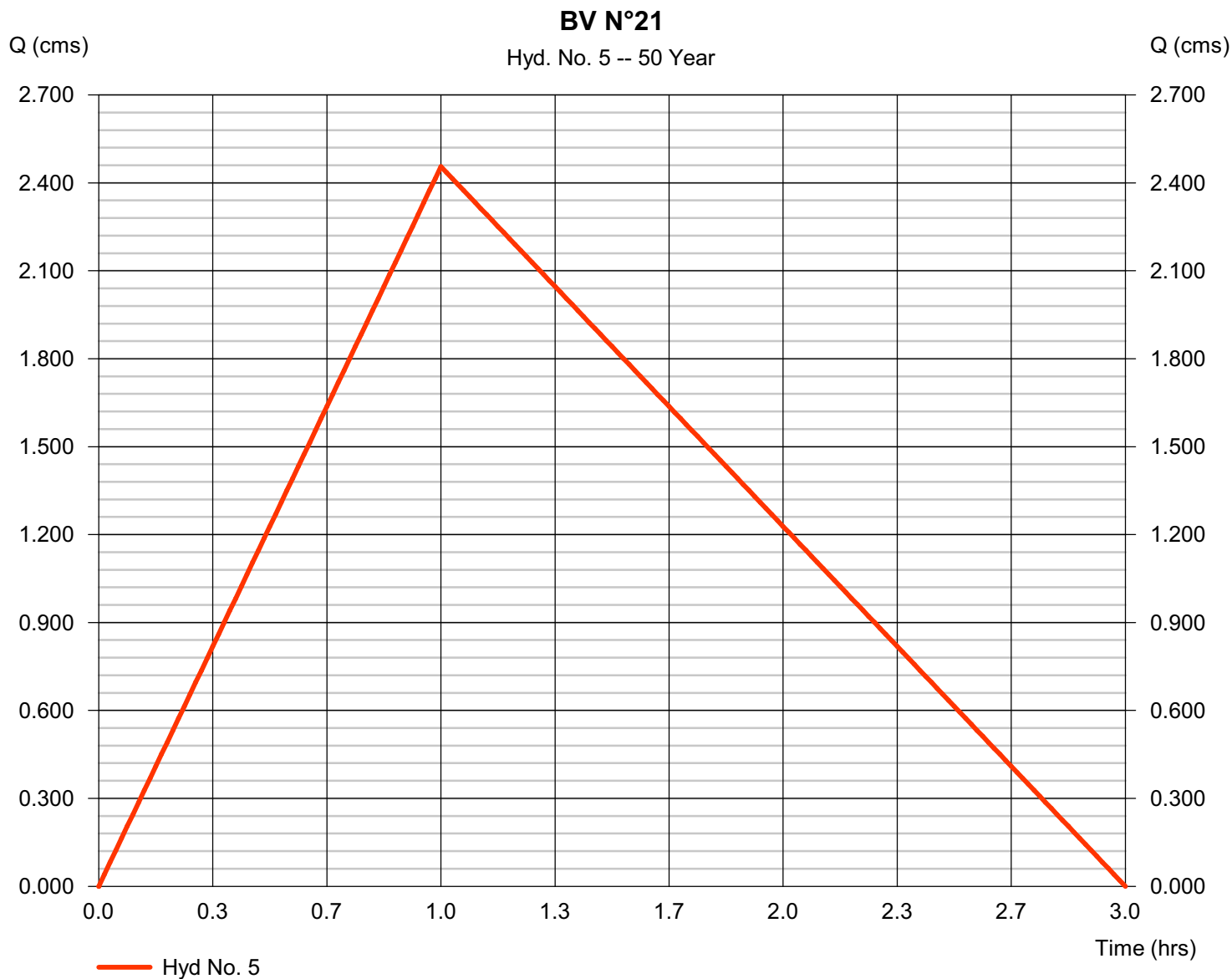
Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2010 by Autodesk, Inc. v9.25

vendredi, févr 5, 2010

## Hyd. No. 5

BV N°21

Hydrograph type	= Rational	Peak discharge	= 2.456 cms
Storm frequency	= 50 yrs	Time to peak	= 1.00 hrs
Time interval	= 1 min	Hyd. volume	= 13 260.8 cum
Drainage area	= 116.100 hectare	Runoff coeff.	= 0.22
Intensity	= 34.900 mm/hr	Tc by User	= 60.00 min
IDF Curve	= IDF_ALSACE.IDF	Asc/Rec limb fact	= 1/2



# Hydrograph Report

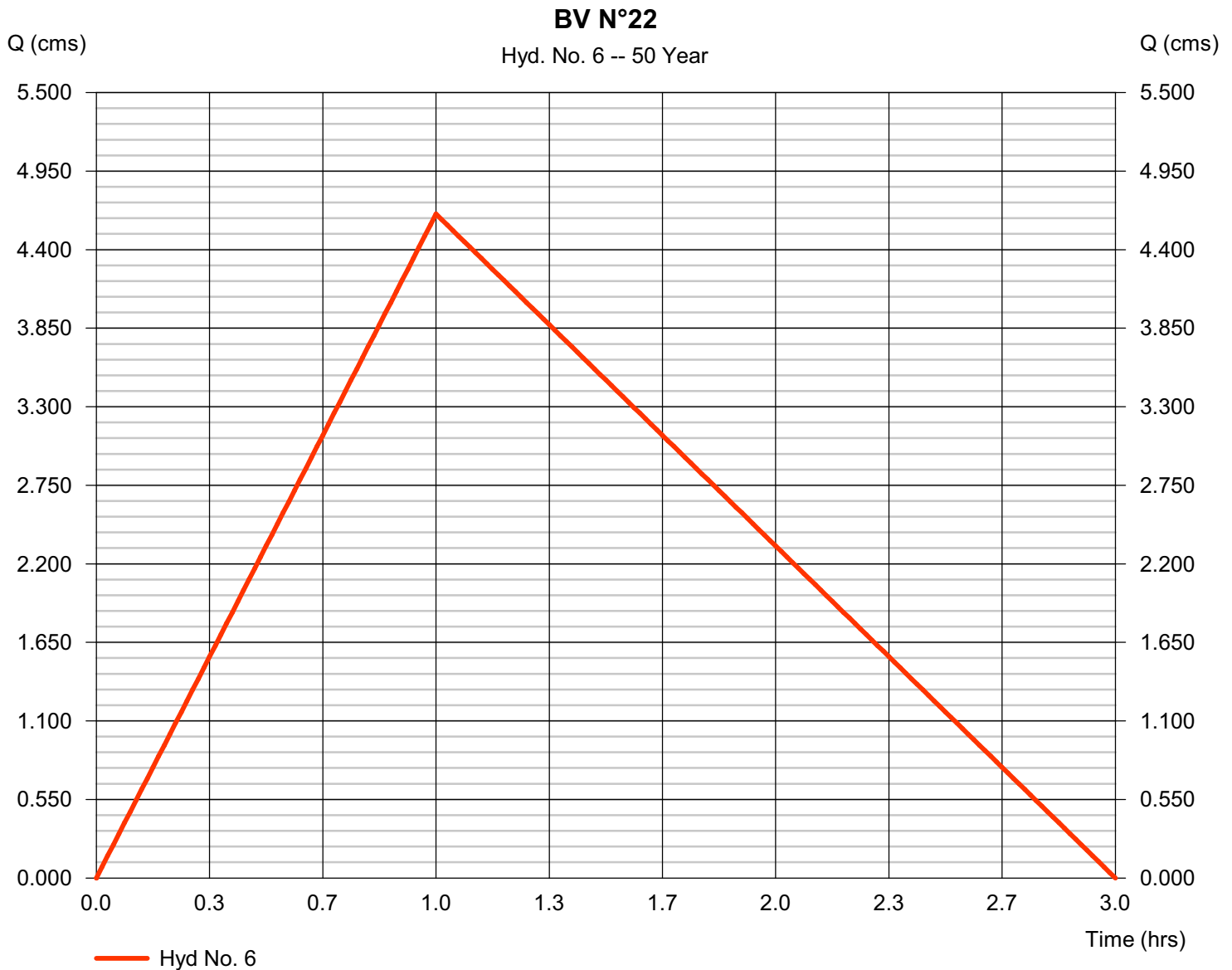
Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2010 by Autodesk, Inc. v9.25

vendredi, févr 5, 2010

## Hyd. No. 6

BV N°22

Hydrograph type	= Rational	Peak discharge	= 4.650 cms
Storm frequency	= 50 yrs	Time to peak	= 1.00 hrs
Time interval	= 1 min	Hyd. volume	= 25 107.4 cum
Drainage area	= 201.500 hectare	Runoff coeff.	= 0.24
Intensity	= 34.900 mm/hr	Tc by User	= 60.00 min
IDF Curve	= IDF_ALSACE.IDF	Asc/Rec limb fact	= 1/2



# Hydrograph Report

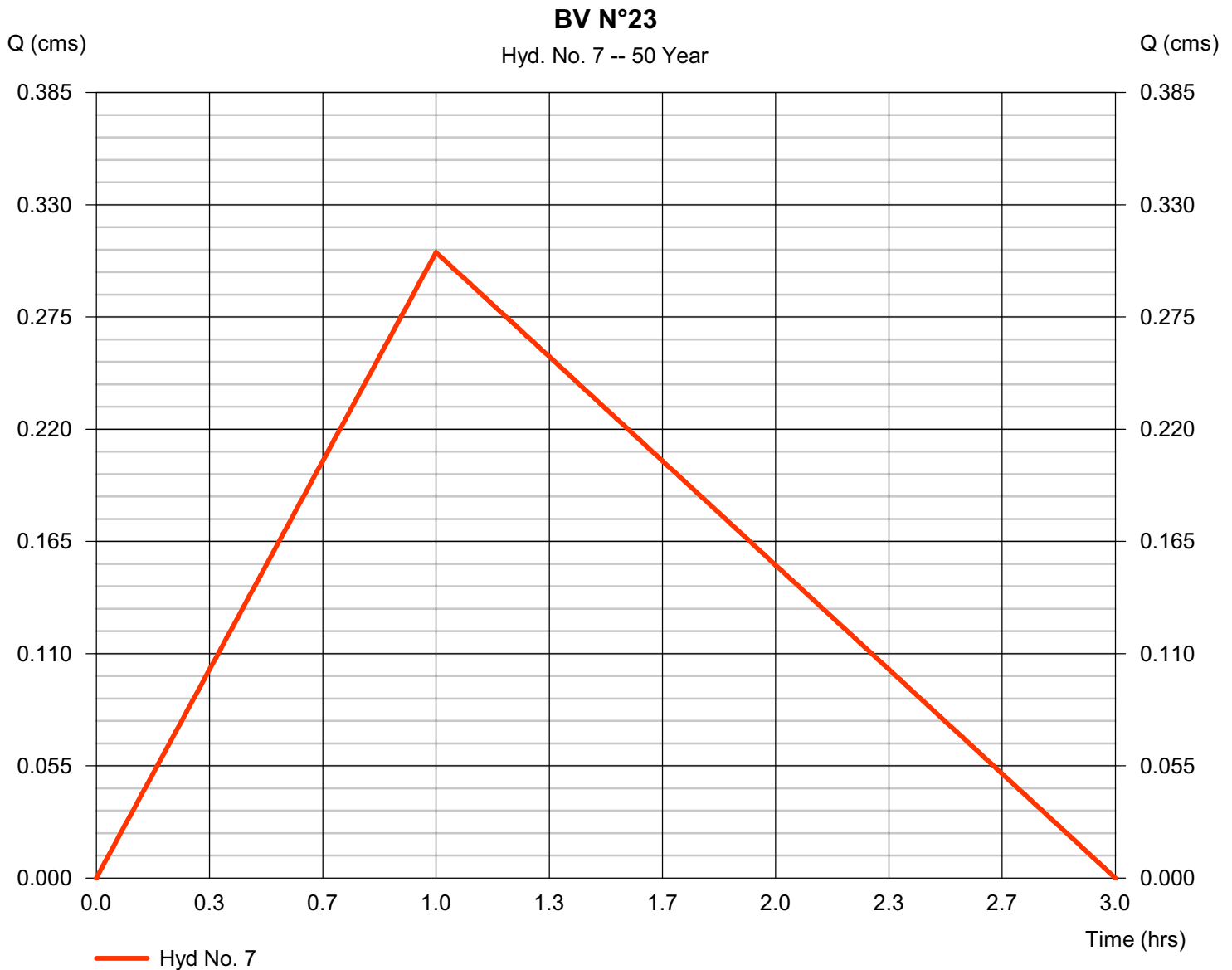
Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2010 by Autodesk, Inc. v9.25

vendredi, févr 5, 2010

## Hyd. No. 7

BV N°23

Hydrograph type	= Rational	Peak discharge	= 0.307 cms
Storm frequency	= 50 yrs	Time to peak	= 1.00 hrs
Time interval	= 1 min	Hyd. volume	= 1 656.2 cum
Drainage area	= 14.500 hectare	Runoff coeff.	= 0.22
Intensity	= 34.900 mm/hr	Tc by User	= 60.00 min
IDF Curve	= IDF_ALSACE.IDF	Asc/Rec limb fact	= 1/2



# Hydrograph Report

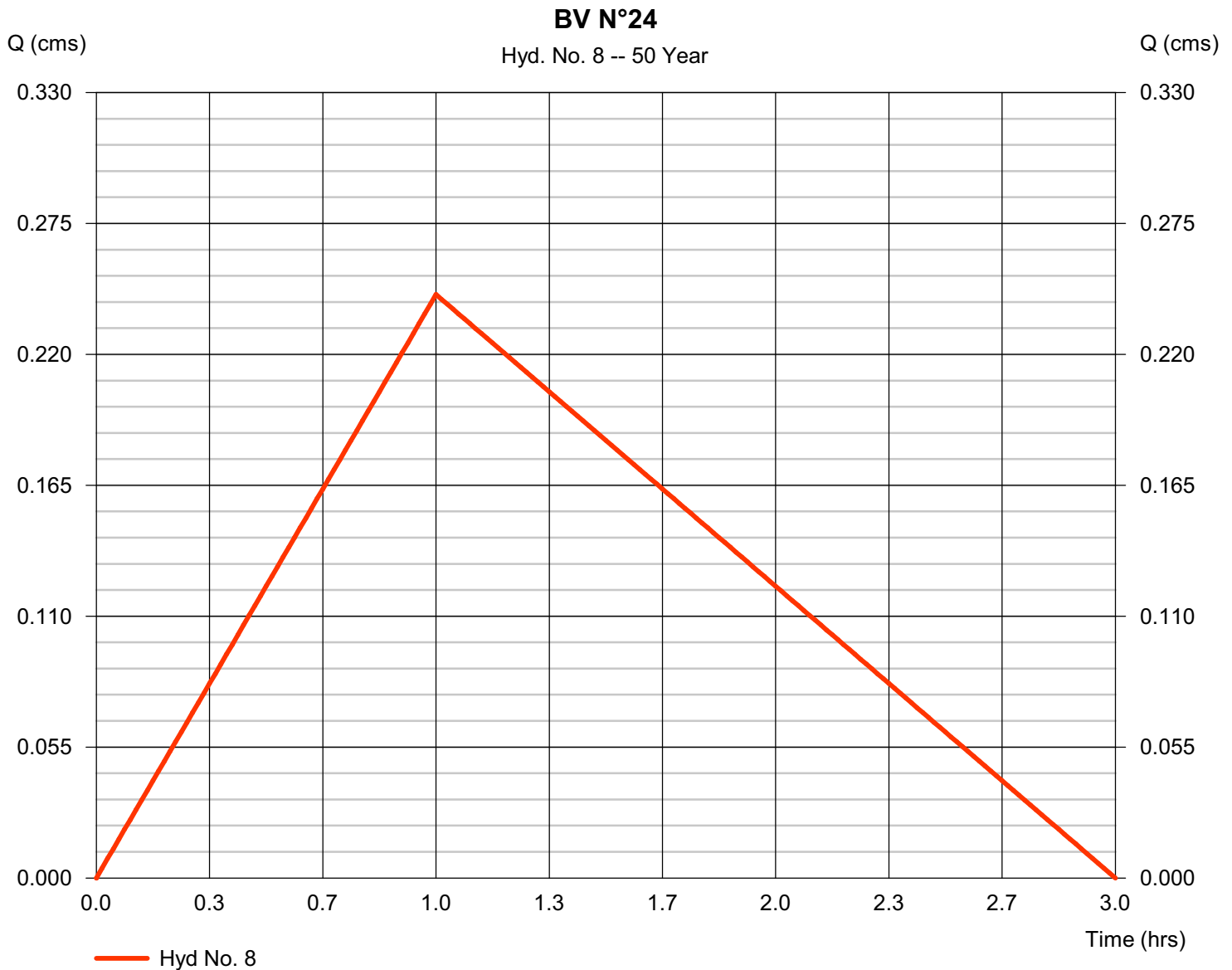
Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2010 by Autodesk, Inc. v9.25

vendredi, févr 5, 2010

## Hyd. No. 8

BV N°24

Hydrograph type	= Rational	Peak discharge	= 0.245 cms
Storm frequency	= 50 yrs	Time to peak	= 1.00 hrs
Time interval	= 1 min	Hyd. volume	= 1 323.9 cum
Drainage area	= 10.200 hectare	Runoff coeff.	= 0.25
Intensity	= 34.900 mm/hr	Tc by User	= 60.00 min
IDF Curve	= IDF_ALSACE.IDF	Asc/Rec limb fact	= 1/2

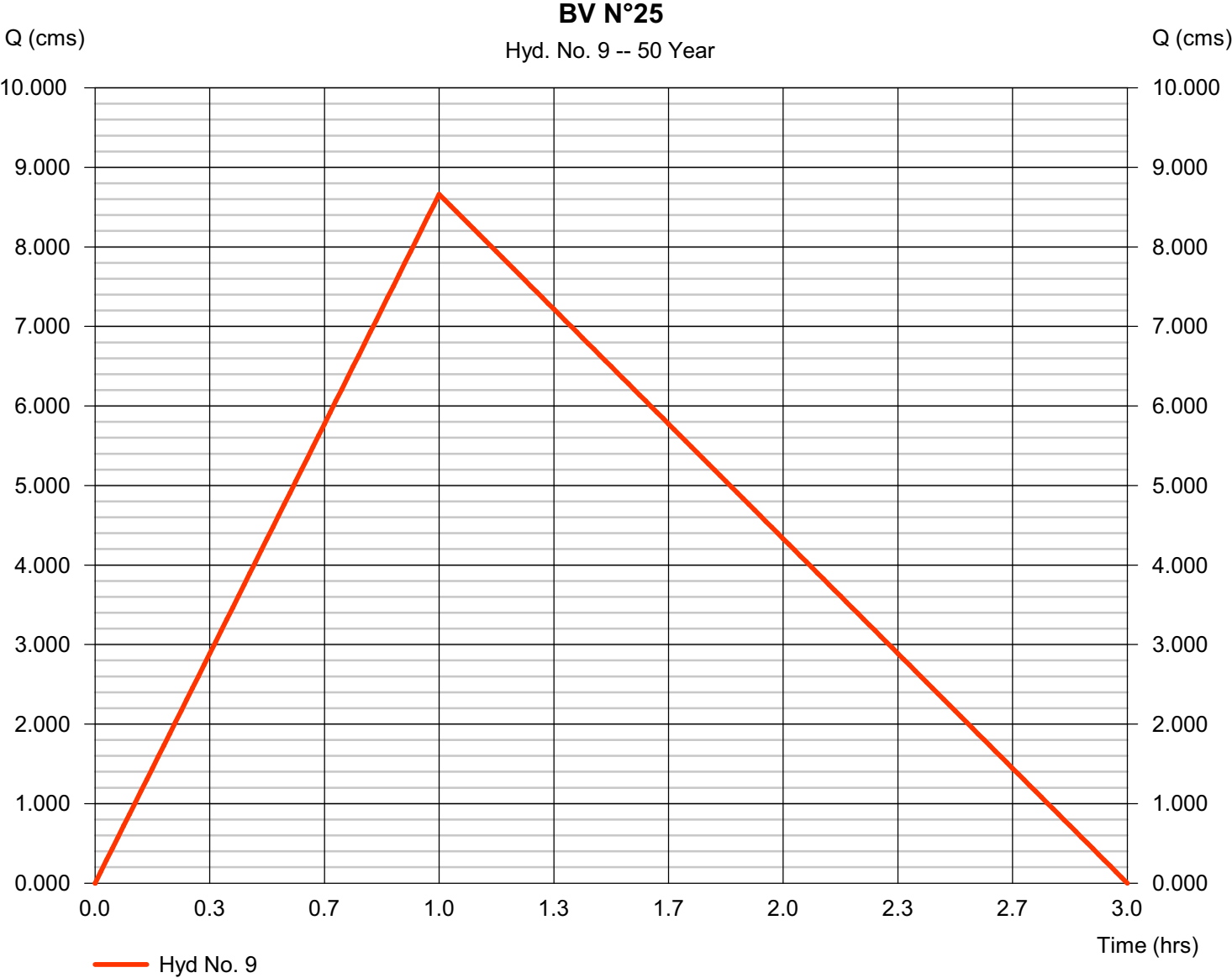


# Hydrograph Report

## Hyd. No. 9

BV N°25

Hydrograph type	= Rational	Peak discharge	= 8.662 cms
Storm frequency	= 50 yrs	Time to peak	= 1.00 hrs
Time interval	= 1 min	Hyd. volume	= 46 772.6 cum
Drainage area	= 409.500 hectare	Runoff coeff.	= 0.22
Intensity	= 34.900 mm/hr	Tc by User	= 60.00 min
IDF Curve	= IDF_ALSACE.IDF	Asc/Rec limb fact	= 1/2

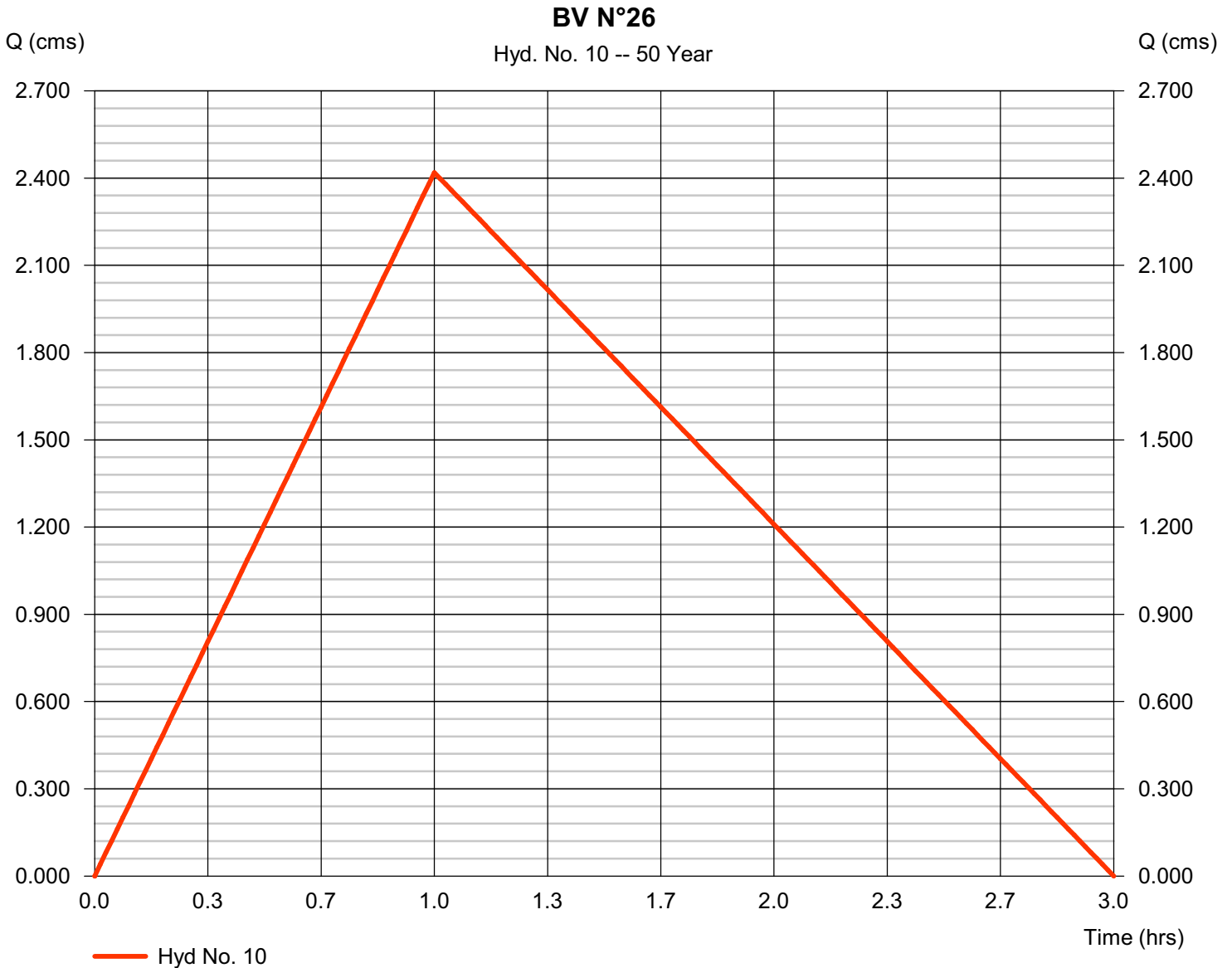


# Hydrograph Report

## Hyd. No. 10

BV N°26

Hydrograph type	= Rational	Peak discharge	= 2.419 cms
Storm frequency	= 50 yrs	Time to peak	= 1.00 hrs
Time interval	= 1 min	Hyd. volume	= 13 063.5 cum
Drainage area	= 109.400 hectare	Runoff coeff.	= 0.23
Intensity	= 34.900 mm/hr	Tc by User	= 60.00 min
IDF Curve	= IDF_ALSACE.IDF	Asc/Rec limb fact	= 1/2



# Hydrograph Report

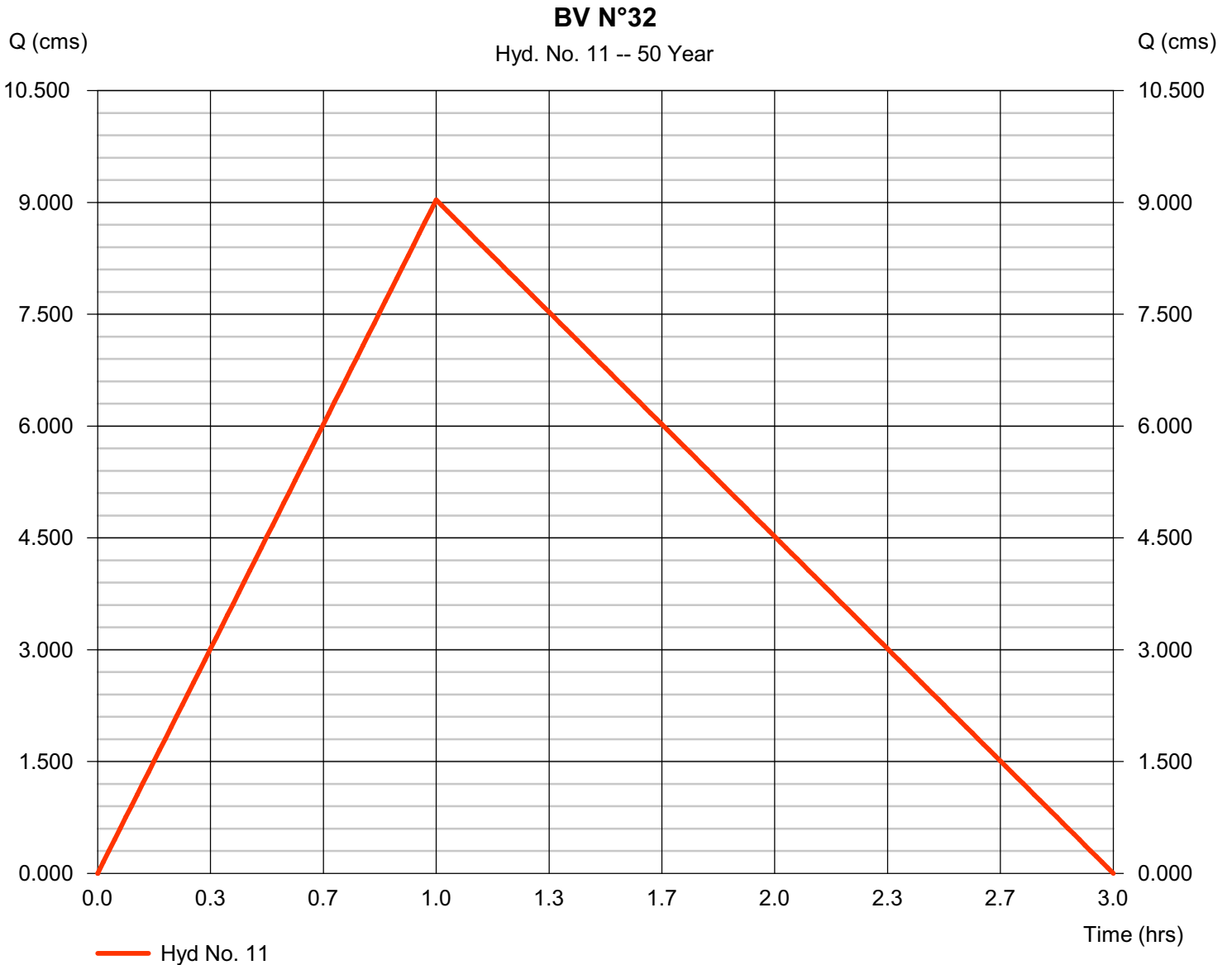
Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2010 by Autodesk, Inc. v9.25

vendredi, févr 5, 2010

## Hyd. No. 11

BV N°32

Hydrograph type	= Rational	Peak discharge	= 9.034 cms
Storm frequency	= 50 yrs	Time to peak	= 1.00 hrs
Time interval	= 1 min	Hyd. volume	= 48 781.8 cum
Drainage area	= 469.800 hectare	Runoff coeff.	= 0.2
Intensity	= 34.900 mm/hr	Tc by User	= 60.00 min
IDF Curve	= IDF_ALSACE.IDF	Asc/Rec limb fact	= 1/2



# Hydrograph Report

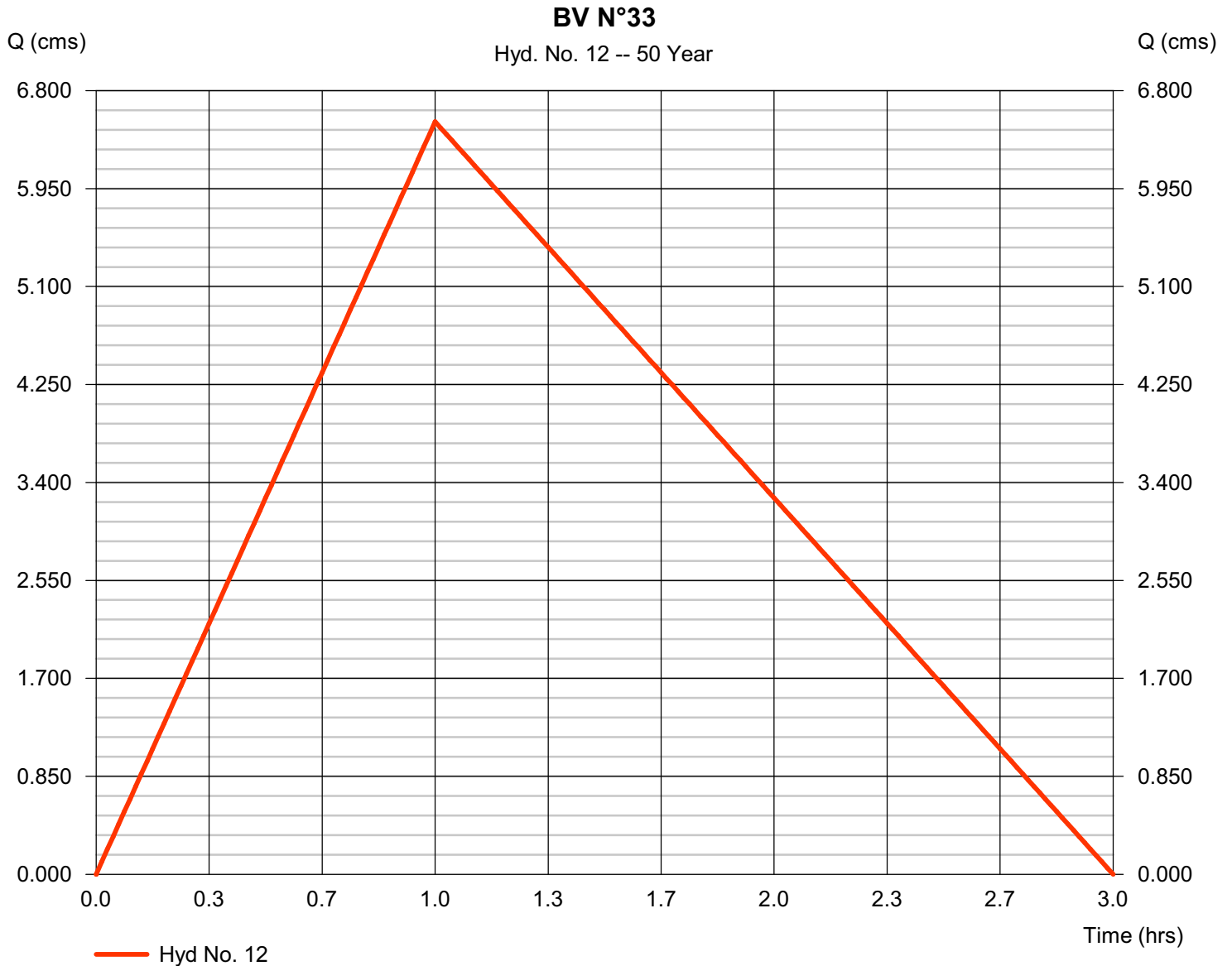
Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2010 by Autodesk, Inc. v9.25

vendredi, févr 5, 2010

## Hyd. No. 12

BV N°33

Hydrograph type	= Rational	Peak discharge	= 6.531 cms
Storm frequency	= 50 yrs	Time to peak	= 1.00 hrs
Time interval	= 1 min	Hyd. volume	= 35 265.0 cum
Drainage area	= 357.500 hectare	Runoff coeff.	= 0.19
Intensity	= 34.900 mm/hr	Tc by User	= 60.00 min
IDF Curve	= IDF_ALSACE.IDF	Asc/Rec limb fact	= 1/2





# Hydrograph Report

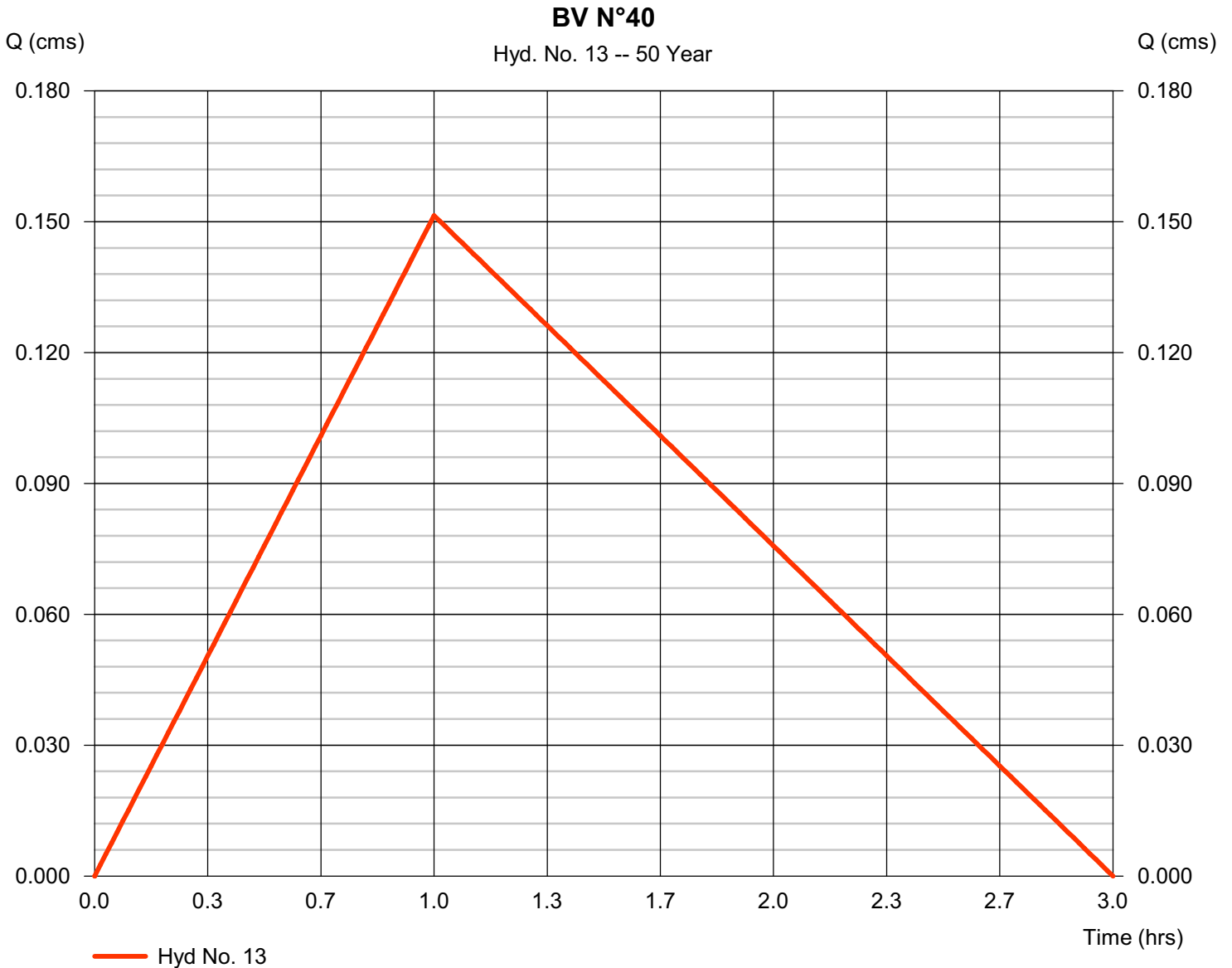
Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2010 by Autodesk, Inc. v9.25

vendredi, févr 5, 2010

## Hyd. No. 13

BV N°40

Hydrograph type	= Rational	Peak discharge	= 0.151 cms
Storm frequency	= 50 yrs	Time to peak	= 1.00 hrs
Time interval	= 1 min	Hyd. volume	= 817.7 cum
Drainage area	= 10.500 hectare	Runoff coeff.	= 0.15
Intensity	= 34.900 mm/hr	Tc by User	= 60.00 min
IDF Curve	= IDF_ALSACE.IDF	Asc/Rec limb fact	= 1/2



# Hydrograph Report

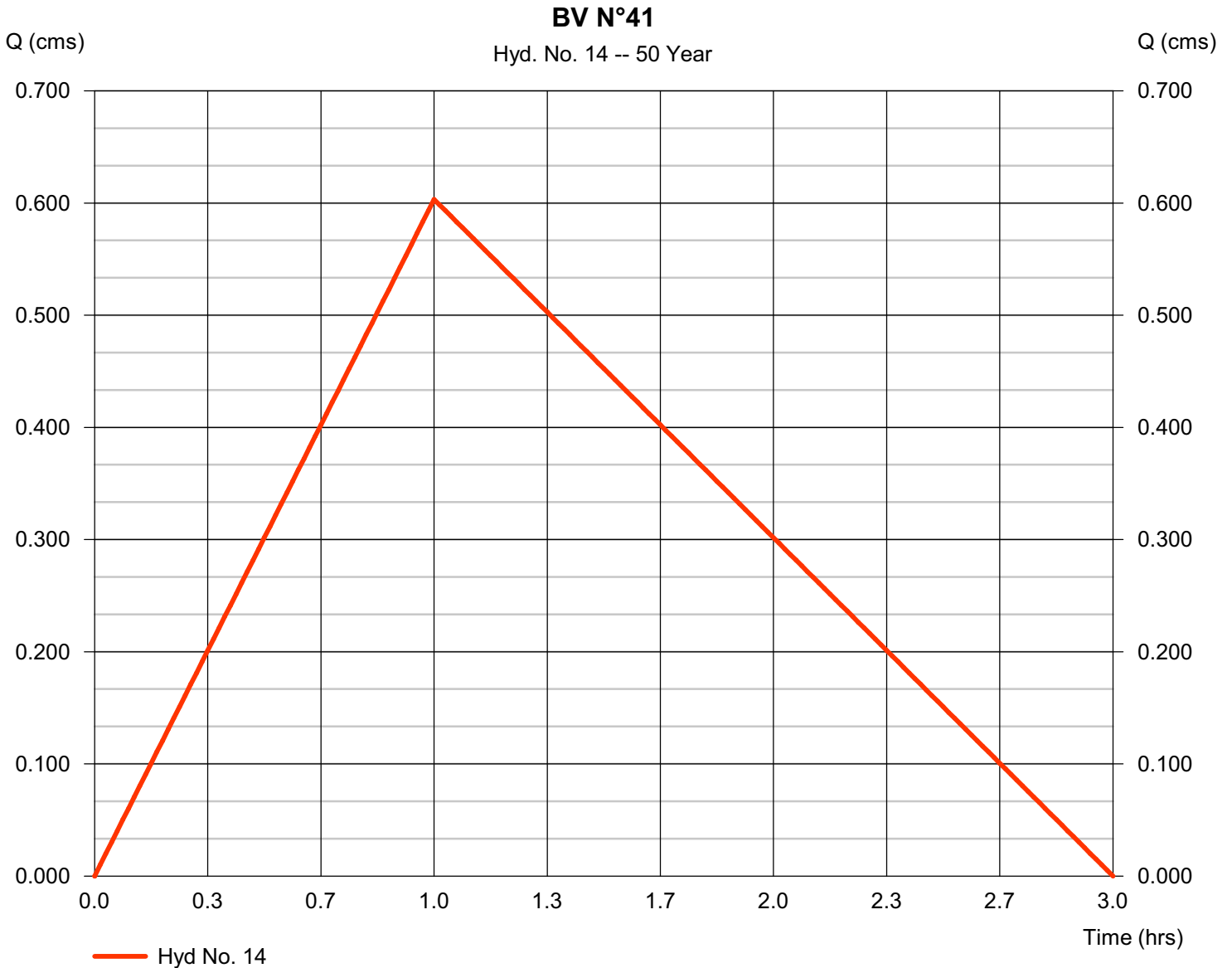
Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2010 by Autodesk, Inc. v9.25

vendredi, févr 5, 2010

## Hyd. No. 14

BV N°41

Hydrograph type	= Rational	Peak discharge	= 0.603 cms
Storm frequency	= 50 yrs	Time to peak	= 1.00 hrs
Time interval	= 1 min	Hyd. volume	= 3 257.8 cum
Drainage area	= 25.100 hectare	Runoff coeff.	= 0.25
Intensity	= 34.900 mm/hr	Tc by User	= 60.00 min
IDF Curve	= IDF_ALSACE.IDF	Asc/Rec limb fact	= 1/2



# Hydrograph Report

## Hyd. No. 15

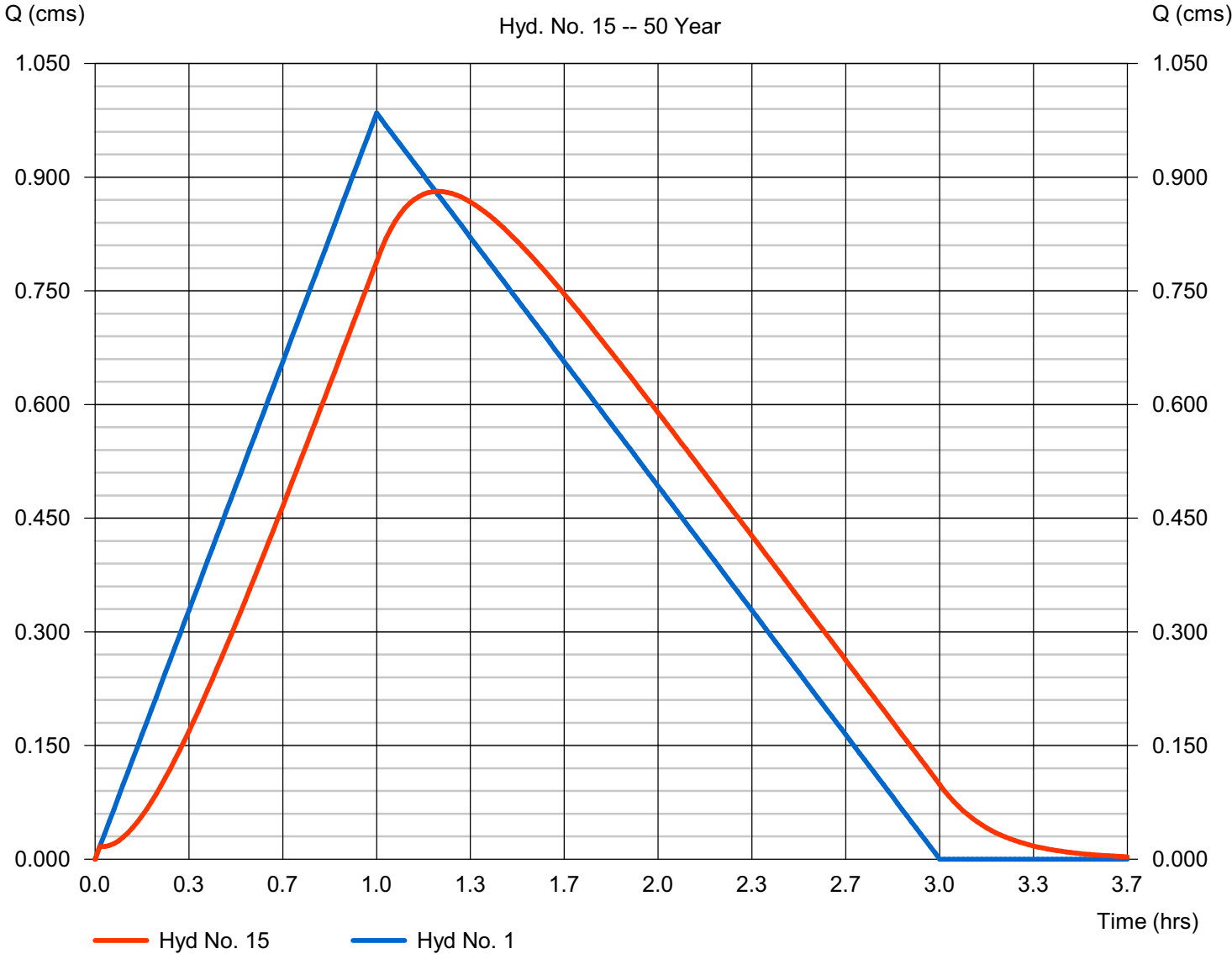
### TRANSFERT BV N°16

Hydrograph type	= Reach	Peak discharge	= 0.881 cms
Storm frequency	= 50 yrs	Time to peak	= 1.22 hrs
Time interval	= 1 min	Hyd. volume	= 5 328.5 cum
Inflow hyd. No.	= 1 - BV N° 16	Section type	= Rectangular
Reach length	= 1516.0 m	Channel slope	= 1.7 %
Manning's n	= 0.025	Bottom width	= 2.0 m
Side slope	= 0.0:1	Max. depth	= 4.0 m
Rating curve x	= 2.216	Rating curve m	= 1.426
Ave. velocity	= 0.00 m/s	Routing coeff.	= 0.0832

Modified Att-Kin routing method used.

### TRANSFERT BV N°16

Hyd. No. 15 -- 50 Year



# Hydrograph Report

## Hyd. No. 16

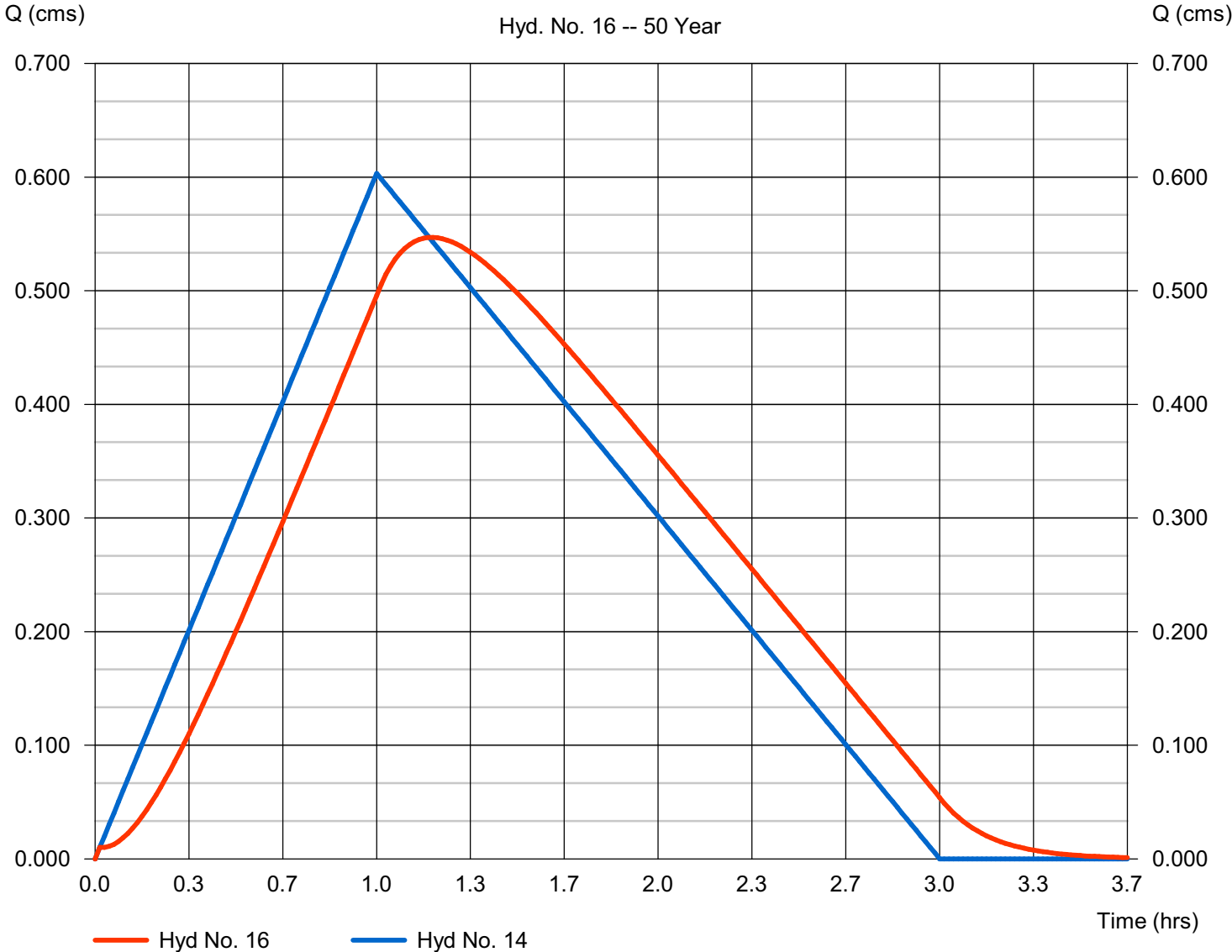
### TRANSFERT BV N°41

Hydrograph type	= Reach	Peak discharge	= 0.547 cms
Storm frequency	= 50 yrs	Time to peak	= 1.20 hrs
Time interval	= 1 min	Hyd. volume	= 3 264.1 cum
Inflow hyd. No.	= 14 - BV N°41	Section type	= Rectangular
Reach length	= 1419.0 m	Channel slope	= 3.0 %
Manning's n	= 0.025	Bottom width	= 2.0 m
Side slope	= 0.0:1	Max. depth	= 4.0 m
Rating curve x	= 2.943	Rating curve m	= 1.426
Ave. velocity	= 0.00 m/s	Routing coeff.	= 0.0932

Modified Att-Kin routing method used.

### TRANSFERT BV N°41

Hyd. No. 16 -- 50 Year



# Hydrograph Report

Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2010 by Autodesk, Inc. v9.25

vendredi, févr 5, 2010

## Hyd. No. 17

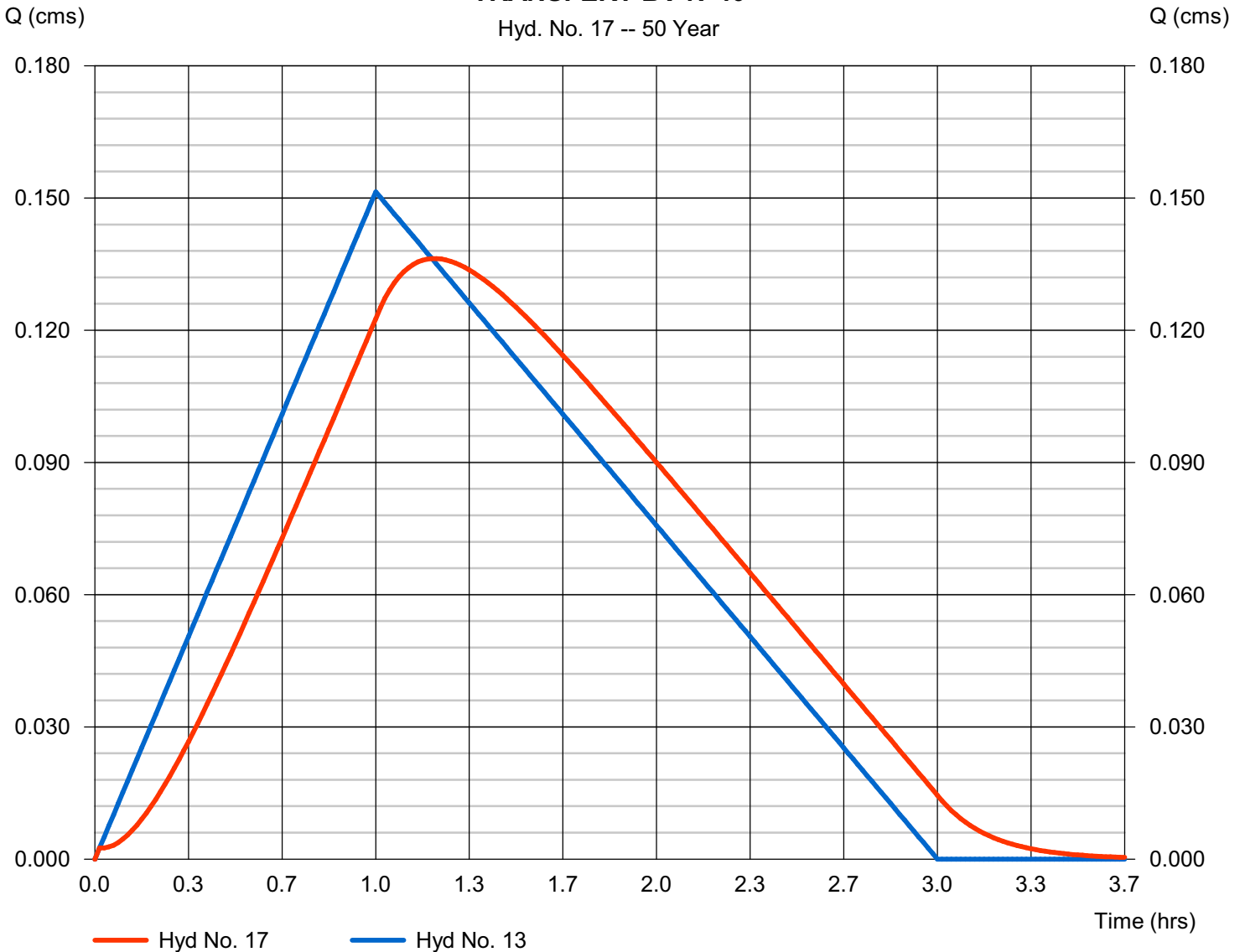
### TRANSFERT BV N°40

Hydrograph type	= Reach	Peak discharge	= 0.136 cms
Storm frequency	= 50 yrs	Time to peak	= 1.22 hrs
Time interval	= 1 min	Hyd. volume	= 819.3 cum
Inflow hyd. No.	= 13 - BV N°40	Section type	= Rectangular
Reach length	= 1104.0 m	Channel slope	= 3.9 %
Manning's n	= 0.025	Bottom width	= 2.0 m
Side slope	= 0.0:1	Max. depth	= 4.0 m
Rating curve x	= 3.356	Rating curve m	= 1.426
Ave. velocity	= 0.00 m/s	Routing coeff.	= 0.0872

Modified Att-Kin routing method used.

### TRANSFERT BV N°40

Hyd. No. 17 -- 50 Year



# Hydrograph Report

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vendredi, févr 5, 2010

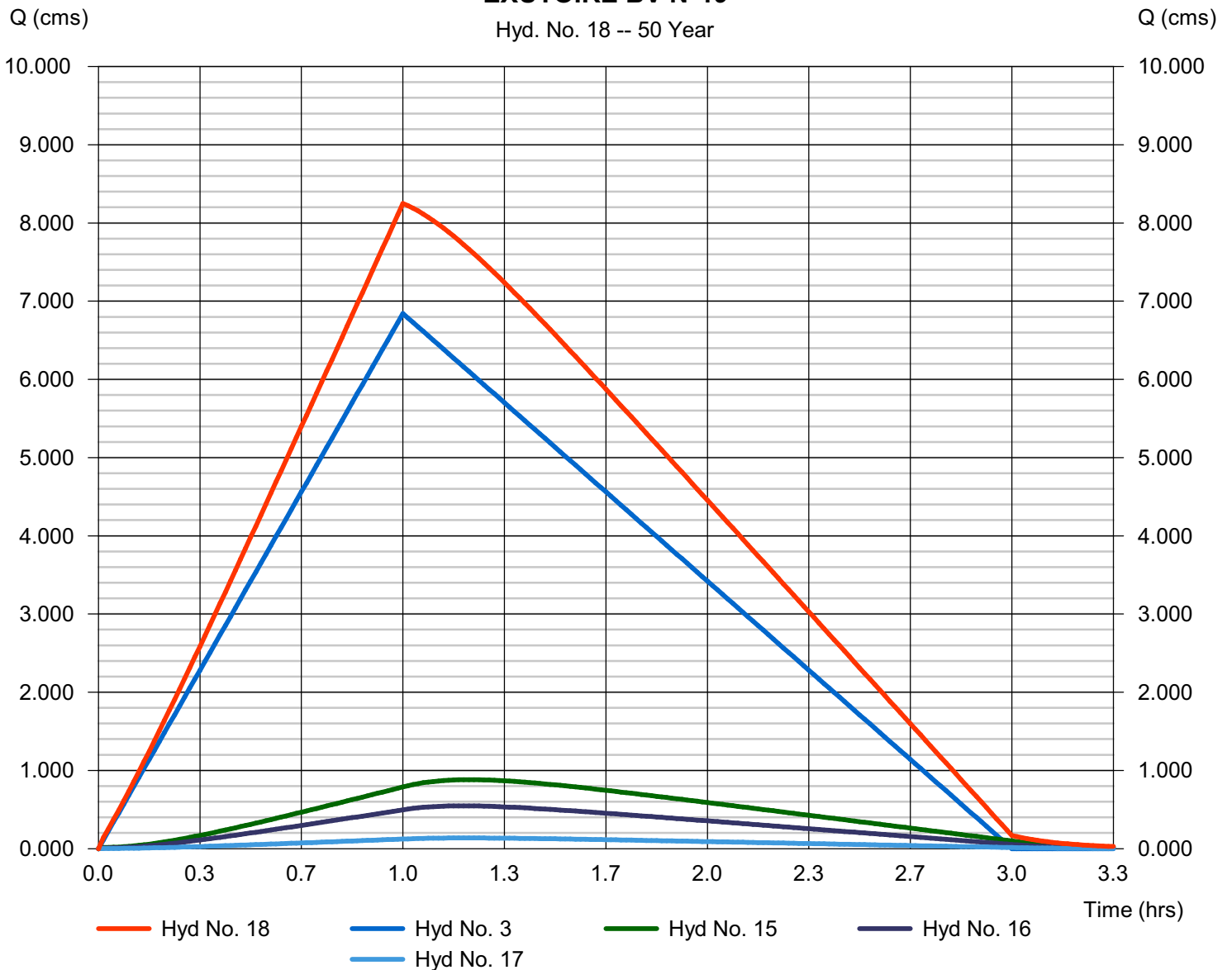
## Hyd. No. 18

EXUTOIRE BV N°19

Hydrograph type	= Combine	Peak discharge	= 8.249 cms
Storm frequency	= 50 yrs	Time to peak	= 1.00 hrs
Time interval	= 1 min	Hyd. volume	= 46 361.7 cum
Inflow hyds.	= 3, 15, 16, 17	Contrib. drain. area	= 323.500 hectare

### EXUTOIRE BV N°19

Hyd. No. 18 -- 50 Year



# Hydrograph Report

Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2010 by Autodesk, Inc. v9.25

vendredi, févr 5, 2010

## Hyd. No. 19

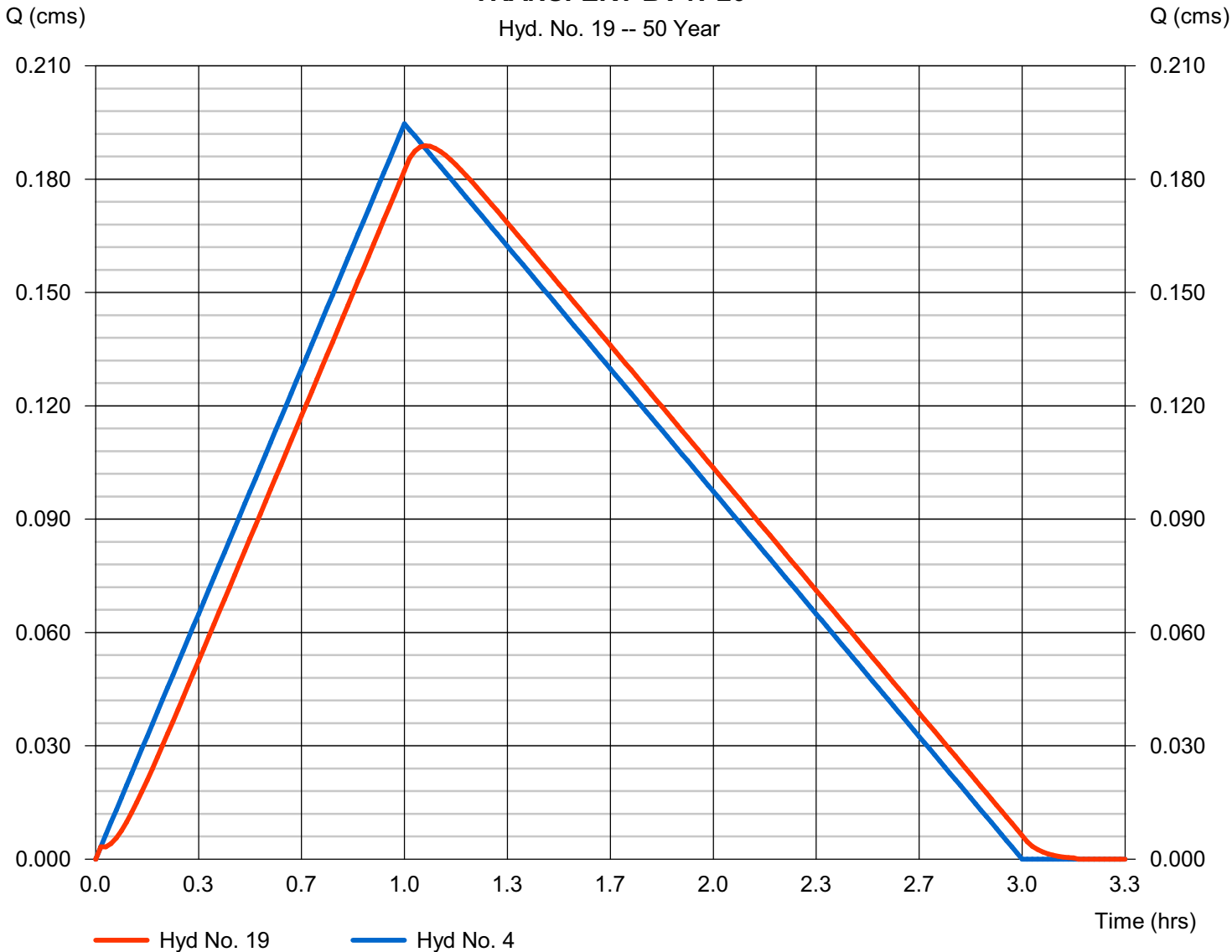
### TRANSFERT BV N°20

Hydrograph type	= Reach	Peak discharge	= 0.189 cms
Storm frequency	= 50 yrs	Time to peak	= 1.07 hrs
Time interval	= 1 min	Hyd. volume	= 1 052.0 cum
Inflow hyd. No.	= 4 - BV N°20	Section type	= Rectangular
Reach length	= 427.0 m	Channel slope	= 1.4 %
Manning's n	= 0.011	Bottom width	= 3.5 m
Side slope	= 0.0:1	Max. depth	= 0.1 m
Rating curve x	= 3.146	Rating curve m	= 1.639
Ave. velocity	= 0.00 m/s	Routing coeff.	= 0.2605

Modified Att-Kin routing method used.

### TRANSFERT BV N°20

Hyd. No. 19 -- 50 Year



# Hydrograph Report

Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2010 by Autodesk, Inc. v9.25

vendredi, févr 5, 2010

## Hyd. No. 20

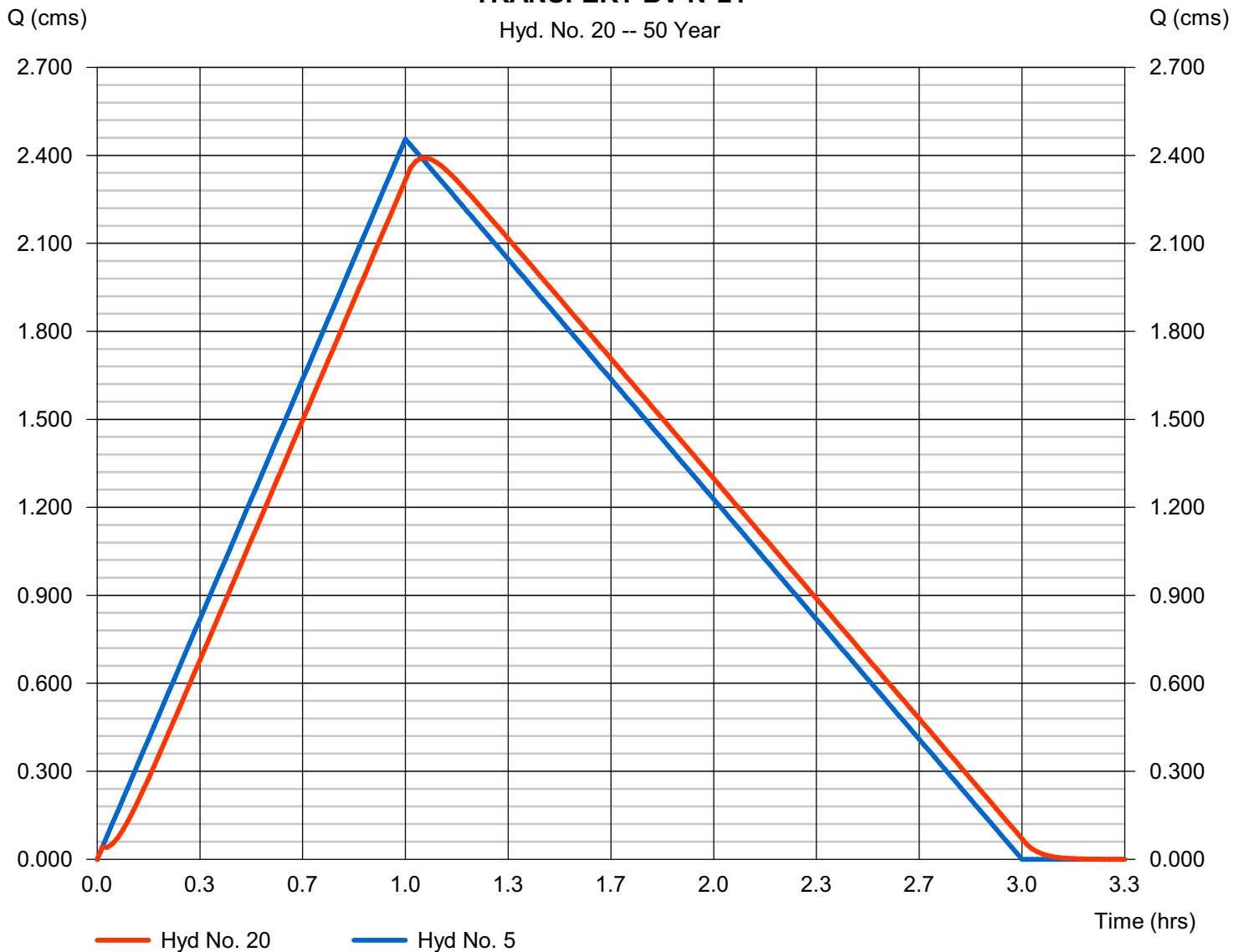
### TRANSFERT BV N°21

Hydrograph type	= Reach	Peak discharge	= 2.391 cms
Storm frequency	= 50 yrs	Time to peak	= 1.07 hrs
Time interval	= 1 min	Hyd. volume	= 13 269.2 cum
Inflow hyd. No.	= 5 - BV N°21	Section type	= Rectangular
Reach length	= 460.0 m	Channel slope	= 1.3 %
Manning's n	= 0.025	Bottom width	= 2.0 m
Side slope	= 0.0:1	Max. depth	= 4.0 m
Rating curve x	= 1.938	Rating curve m	= 1.426
Ave. velocity	= 0.00 m/s	Routing coeff.	= 0.2921

Modified Att-Kin routing method used.

### TRANSFERT BV N°21

Hyd. No. 20 -- 50 Year





# Hydrograph Report

Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2010 by Autodesk, Inc. v9.25

vendredi, févr 5, 2010

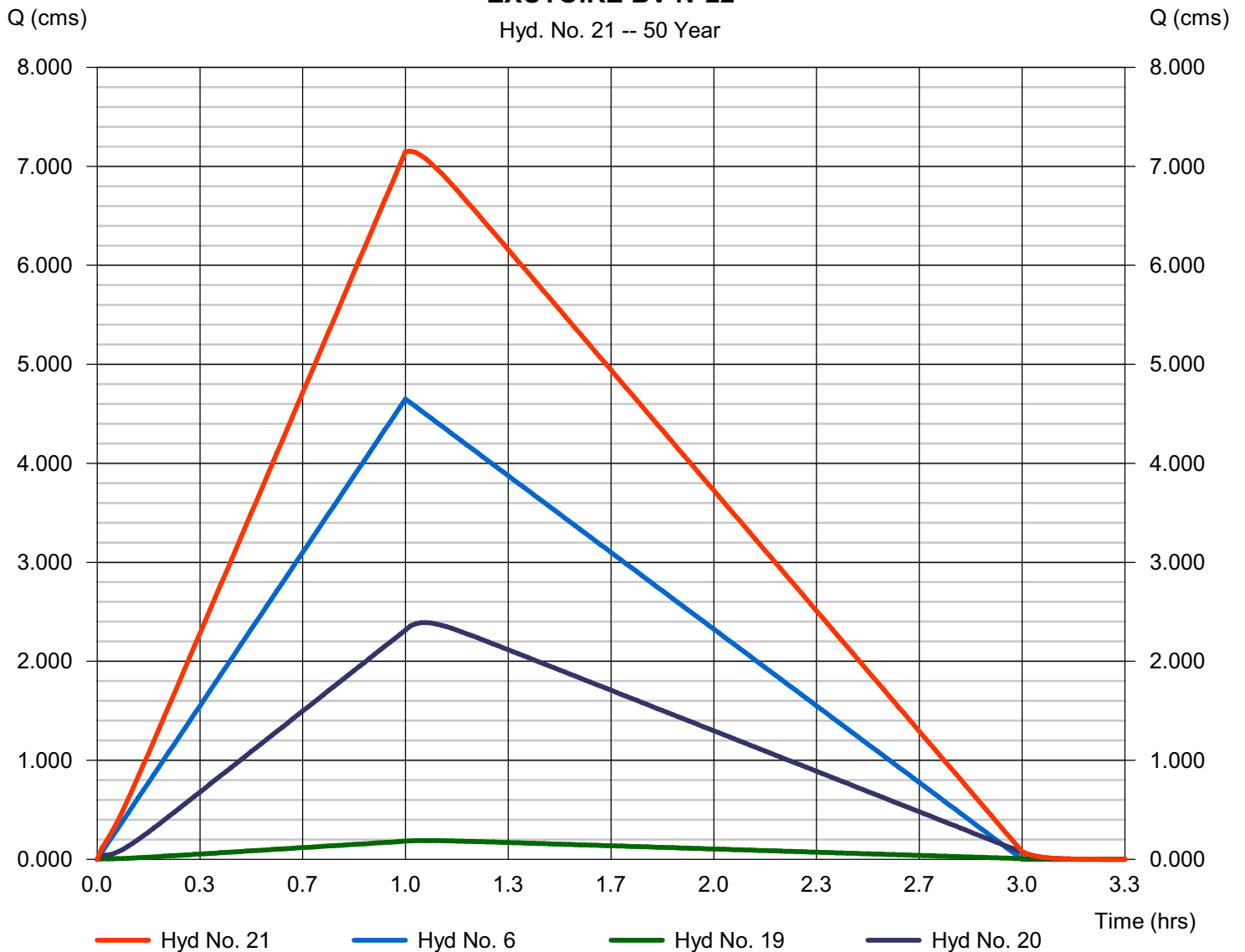
## Hyd. No. 21

EXUTOIRE BV N°22

Hydrograph type	= Combine	Peak discharge	= 7.153 cms
Storm frequency	= 50 yrs	Time to peak	= 1.02 hrs
Time interval	= 1 min	Hyd. volume	= 39 428.6 cum
Inflow hyds.	= 6, 19, 20	Contrib. drain. area	= 201.500 hectare

### EXUTOIRE BV N°22

Hyd. No. 21 -- 50 Year



# Hydrograph Report

Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2010 by Autodesk, Inc. v9.25

vendredi, févr 5, 2010

## Hyd. No. 22

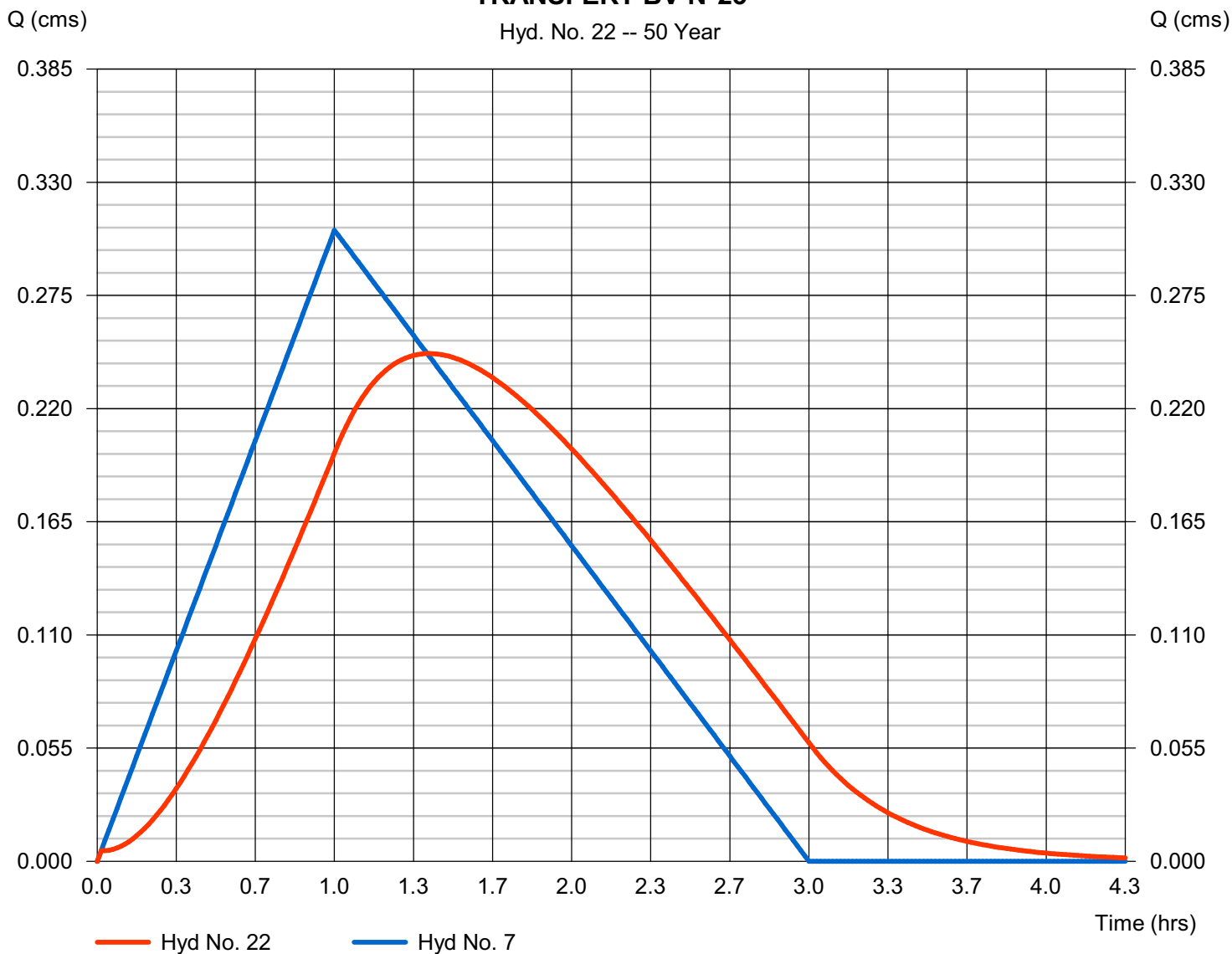
### TRANSFERT BV N°23

Hydrograph type	= Reach	Peak discharge	= 0.247 cms
Storm frequency	= 50 yrs	Time to peak	= 1.40 hrs
Time interval	= 1 min	Hyd. volume	= 1 662.8 cum
Inflow hyd. No.	= 7 - BV N°23	Section type	= Rectangular
Reach length	= 1938.0 m	Channel slope	= 1.4 %
Manning's n	= 0.025	Bottom width	= 2.0 m
Side slope	= 0.0:1	Max. depth	= 4.0 m
Rating curve x	= 2.011	Rating curve m	= 1.426
Ave. velocity	= 0.00 m/s	Routing coeff.	= 0.0438

Modified Att-Kin routing method used.

### TRANSFERT BV N°23

Hyd. No. 22 -- 50 Year



# Hydrograph Report

Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2010 by Autodesk, Inc. v9.25

vendredi, févr 5, 2010

## Hyd. No. 23

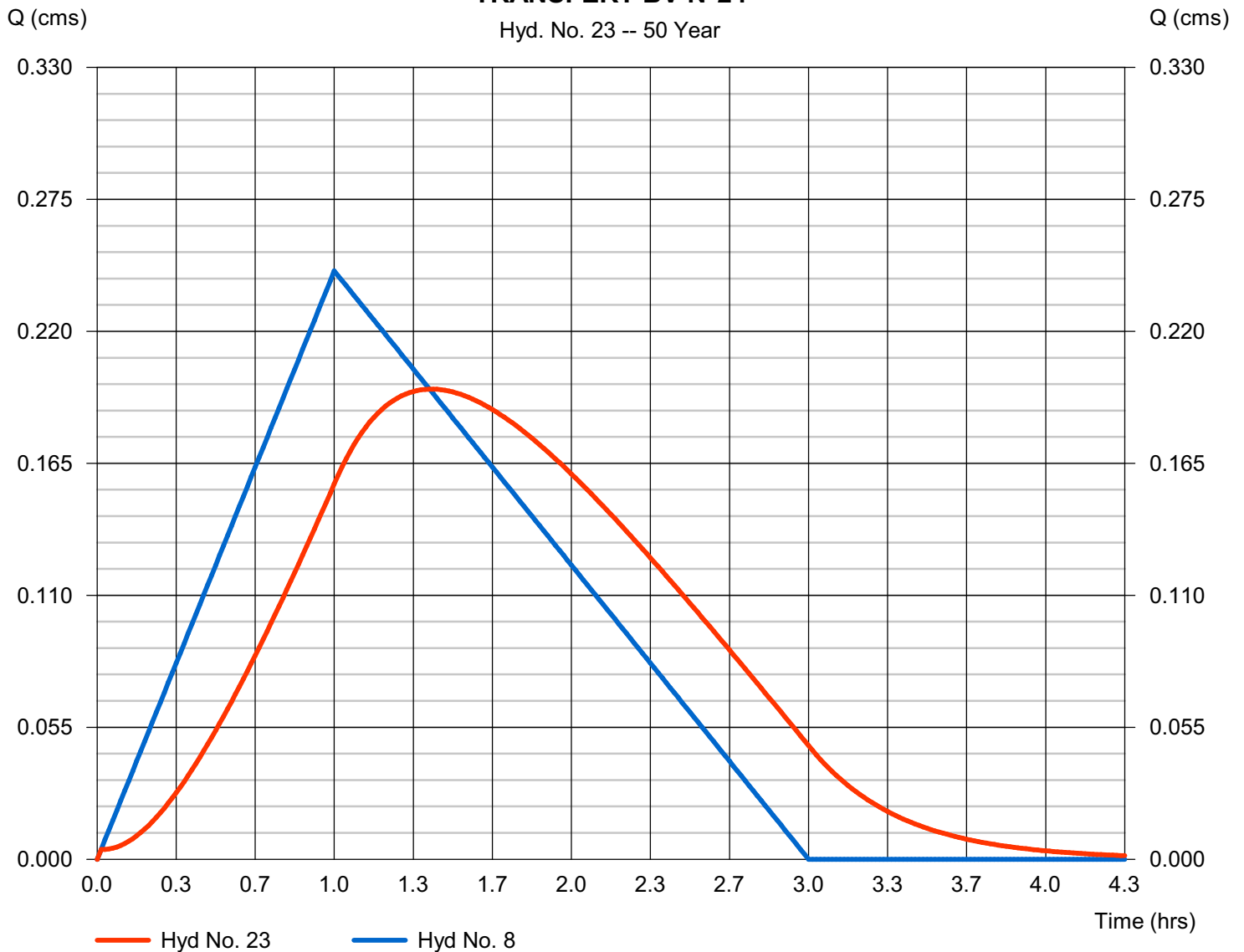
### TRANSFERT BV N°24

Hydrograph type	= Reach	Peak discharge	= 0.196 cms
Storm frequency	= 50 yrs	Time to peak	= 1.42 hrs
Time interval	= 1 min	Hyd. volume	= 1 329.3 cum
Inflow hyd. No.	= 8 - BV N°24	Section type	= Rectangular
Reach length	= 1960.0 m	Channel slope	= 1.6 %
Manning's n	= 0.025	Bottom width	= 2.0 m
Side slope	= 0.0:1	Max. depth	= 4.0 m
Rating curve x	= 2.150	Rating curve m	= 1.426
Ave. velocity	= 0.00 m/s	Routing coeff.	= 0.0424

Modified Att-Kin routing method used.

### TRANSFERT BV N°24

Hyd. No. 23 -- 50 Year



# Hydrograph Report

Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2010 by Autodesk, Inc. v9.25

vendredi, févr 5, 2010

## Hyd. No. 24

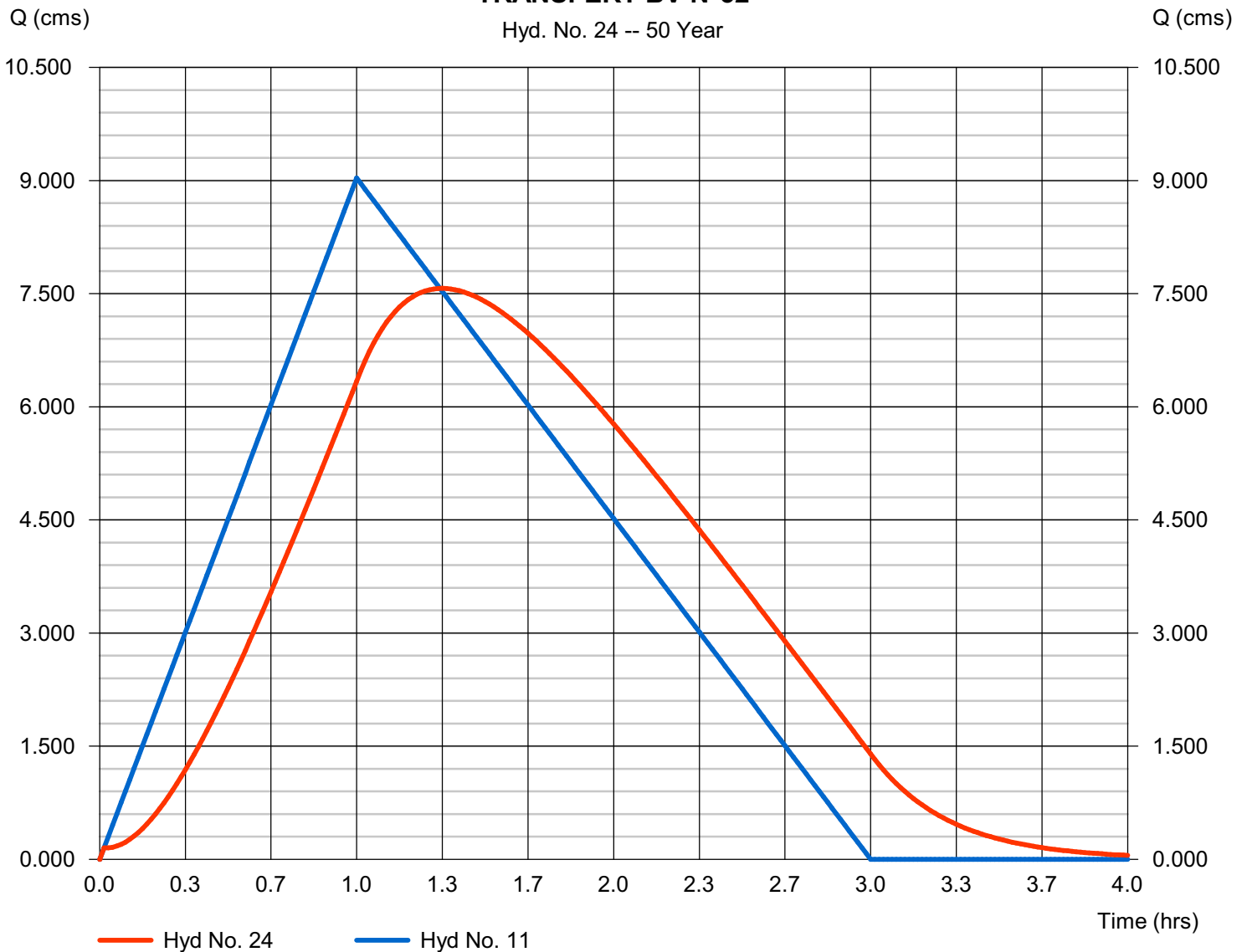
### TRANSFERT BV N°32

Hydrograph type	= Reach	Peak discharge	= 7.570 cms
Storm frequency	= 50 yrs	Time to peak	= 1.33 hrs
Time interval	= 1 min	Hyd. volume	= 48 949.9 cum
Inflow hyd. No.	= 11 - BV N°32	Section type	= Rectangular
Reach length	= 3124.0 m	Channel slope	= 0.6 %
Manning's n	= 0.026	Bottom width	= 2.0 m
Side slope	= 0.0:1	Max. depth	= 4.0 m
Rating curve x	= 1.266	Rating curve m	= 1.426
Ave. velocity	= 0.00 m/s	Routing coeff.	= 0.0537

Modified Att-Kin routing method used.

### TRANSFERT BV N°32

Hyd. No. 24 -- 50 Year



# Hydrograph Report

Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2010 by Autodesk, Inc. v9.25

vendredi, févr 5, 2010

## Hyd. No. 25

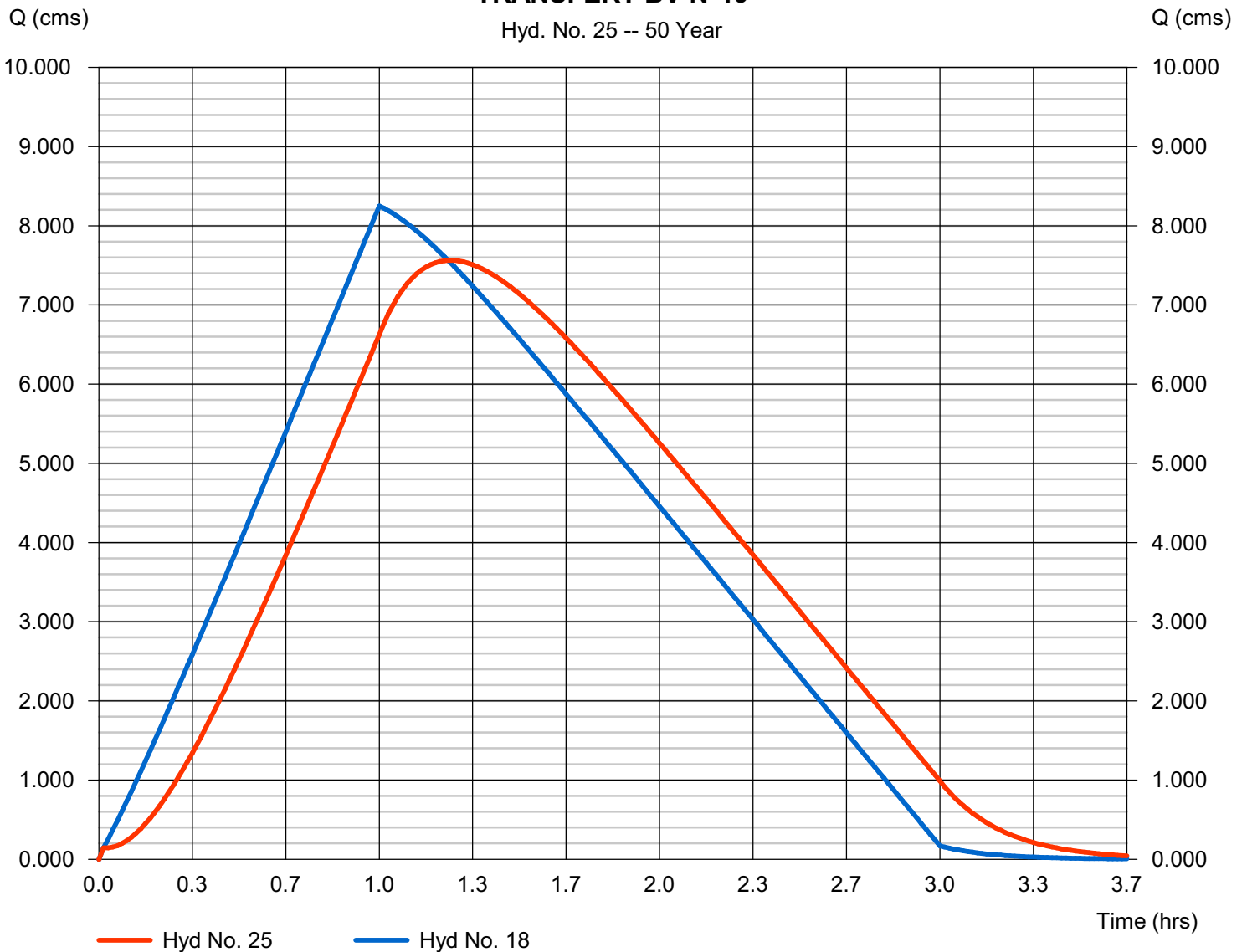
### TRANSFERT BV N°19

Hydrograph type	= Reach	Peak discharge	= 7.564 cms
Storm frequency	= 50 yrs	Time to peak	= 1.25 hrs
Time interval	= 1 min	Hyd. volume	= 46 460.0 cum
Inflow hyd. No.	= 18 - EXUTOIRE BV N°19	Section type	= Rectangular
Reach length	= 2180.0 m	Channel slope	= 0.9 %
Manning's n	= 0.025	Bottom width	= 2.0 m
Side slope	= 0.0:1	Max. depth	= 4.0 m
Rating curve x	= 1.612	Rating curve m	= 1.426
Ave. velocity	= 0.00 m/s	Routing coeff.	= 0.0871

Modified Att-Kin routing method used.

### TRANSFERT BV N°19

Hyd. No. 25 -- 50 Year



# Hydrograph Report

Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2010 by Autodesk, Inc. v9.25

vendredi, févr 5, 2010

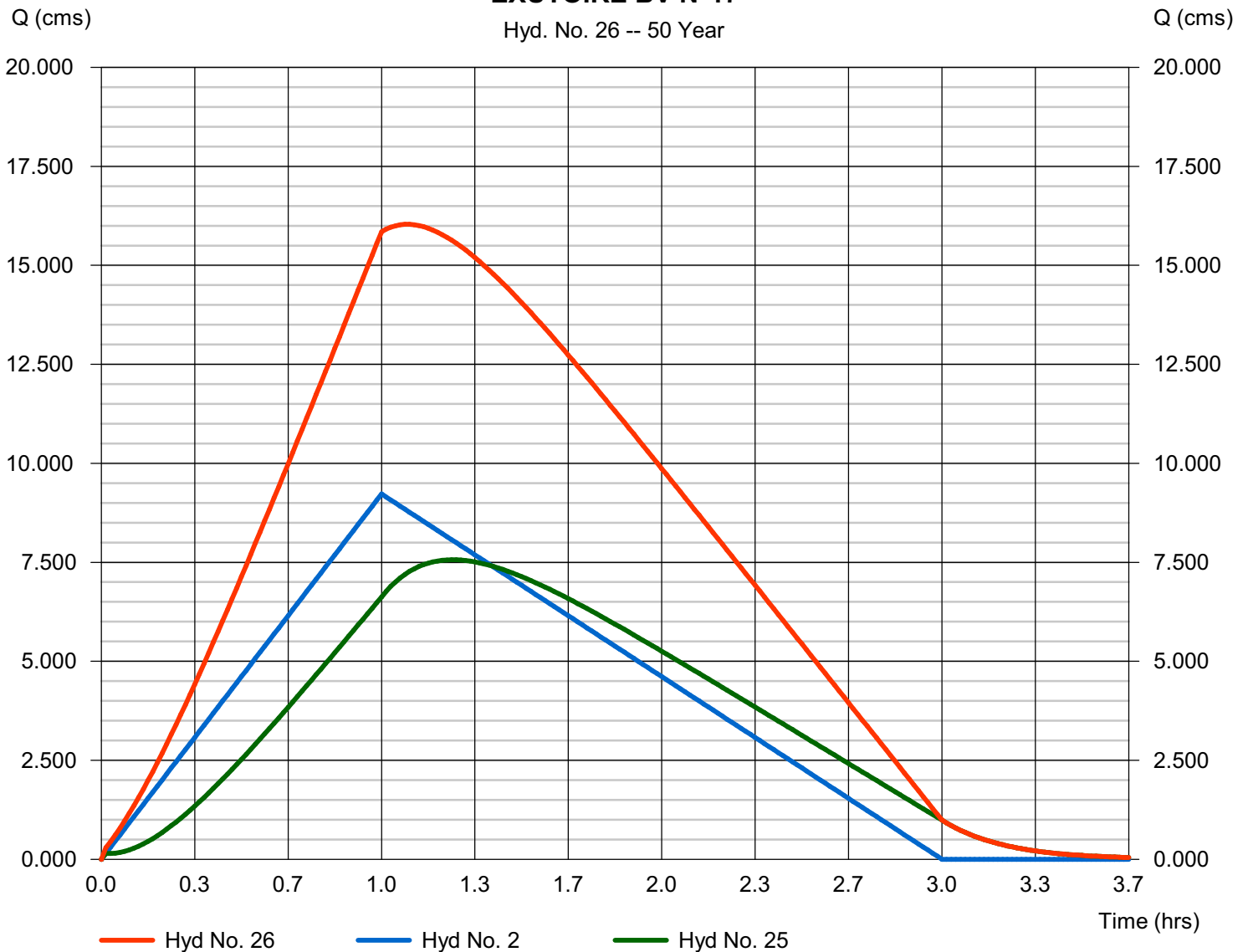
## Hyd. No. 26

EXUTOIRE BV N°17

Hydrograph type	= Combine	Peak discharge	= 16.03 cms
Storm frequency	= 50 yrs	Time to peak	= 1.08 hrs
Time interval	= 1 min	Hyd. volume	= 96 278.1 cum
Inflow hyds.	= 2, 25	Contrib. drain. area	= 417.200 hectare

### EXUTOIRE BV N°17

Hyd. No. 26 -- 50 Year



# Hydrograph Report

Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2010 by Autodesk, Inc. v9.25

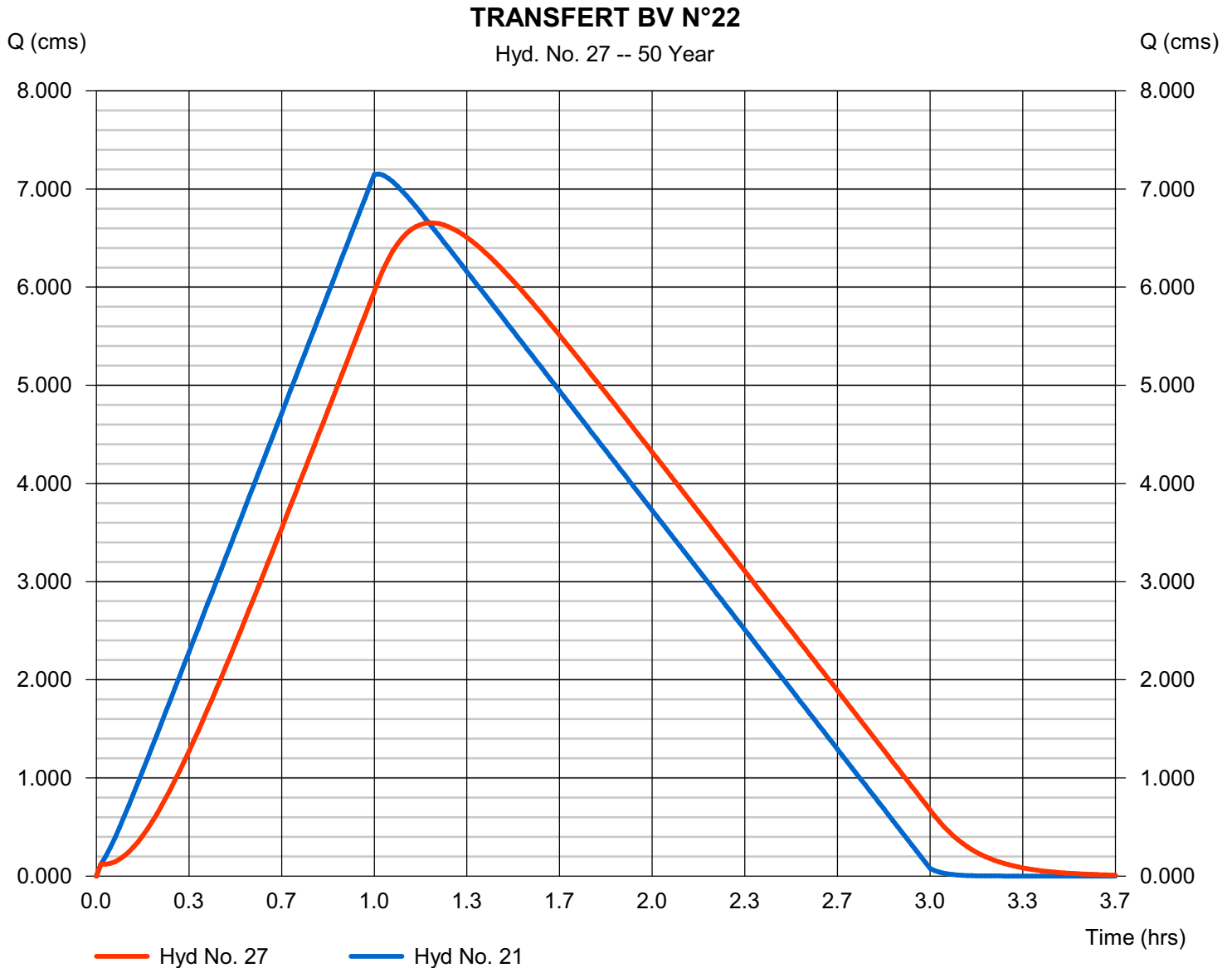
vendredi, févr 5, 2010

## Hyd. No. 27

### TRANSFERT BV N°22

Hydrograph type	= Reach	Peak discharge	= 6.655 cms
Storm frequency	= 50 yrs	Time to peak	= 1.20 hrs
Time interval	= 1 min	Hyd. volume	= 39 500.0 cum
Inflow hyd. No.	= 21 - EXUTOIRE BV N°22	Section type	= Rectangular
Reach length	= 1840.0 m	Channel slope	= 1.0 %
Manning's n	= 0.025	Bottom width	= 2.0 m
Side slope	= 0.0:1	Max. depth	= 4.0 m
Rating curve x	= 1.699	Rating curve m	= 1.426
Ave. velocity	= 0.00 m/s	Routing coeff.	= 0.1019

Modified Att-Kin routing method used.



# Hydrograph Report

Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2010 by Autodesk, Inc. v9.25

vendredi, févr 5, 2010

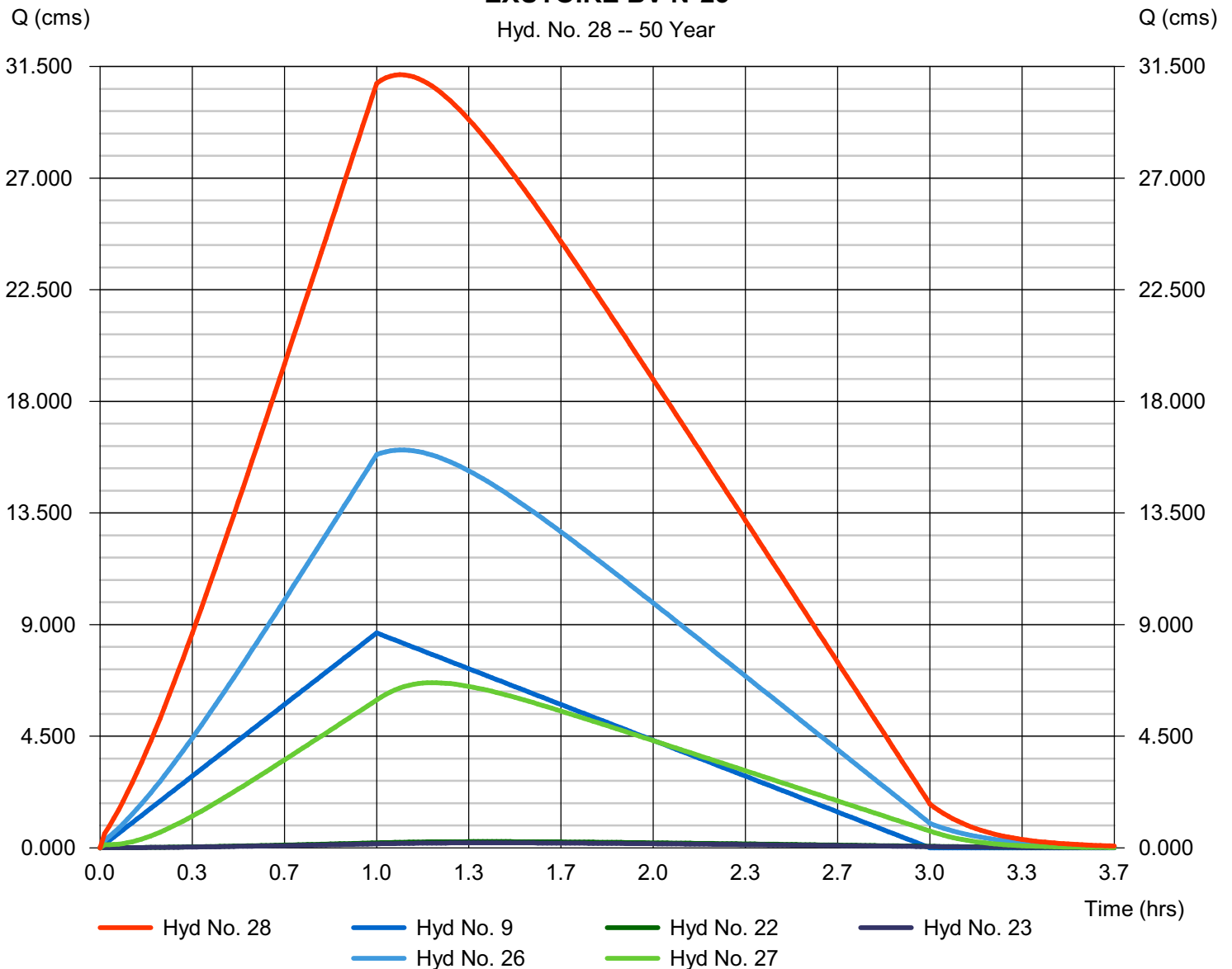
## Hyd. No. 28

EXUTOIRE BV N°25

Hydrograph type	= Combine	Peak discharge	= 31.17 cms
Storm frequency	= 50 yrs	Time to peak	= 1.08 hrs
Time interval	= 1 min	Hyd. volume	= 185 542.8 cum
Inflow hyds.	= 9, 22, 23, 26, 27	Contrib. drain. area	= 409.500 hectare

### EXUTOIRE BV N°25

Hyd. No. 28 -- 50 Year





# Hydrograph Report

Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2010 by Autodesk, Inc. v9.25

vendredi, févr 5, 2010

## Hyd. No. 29

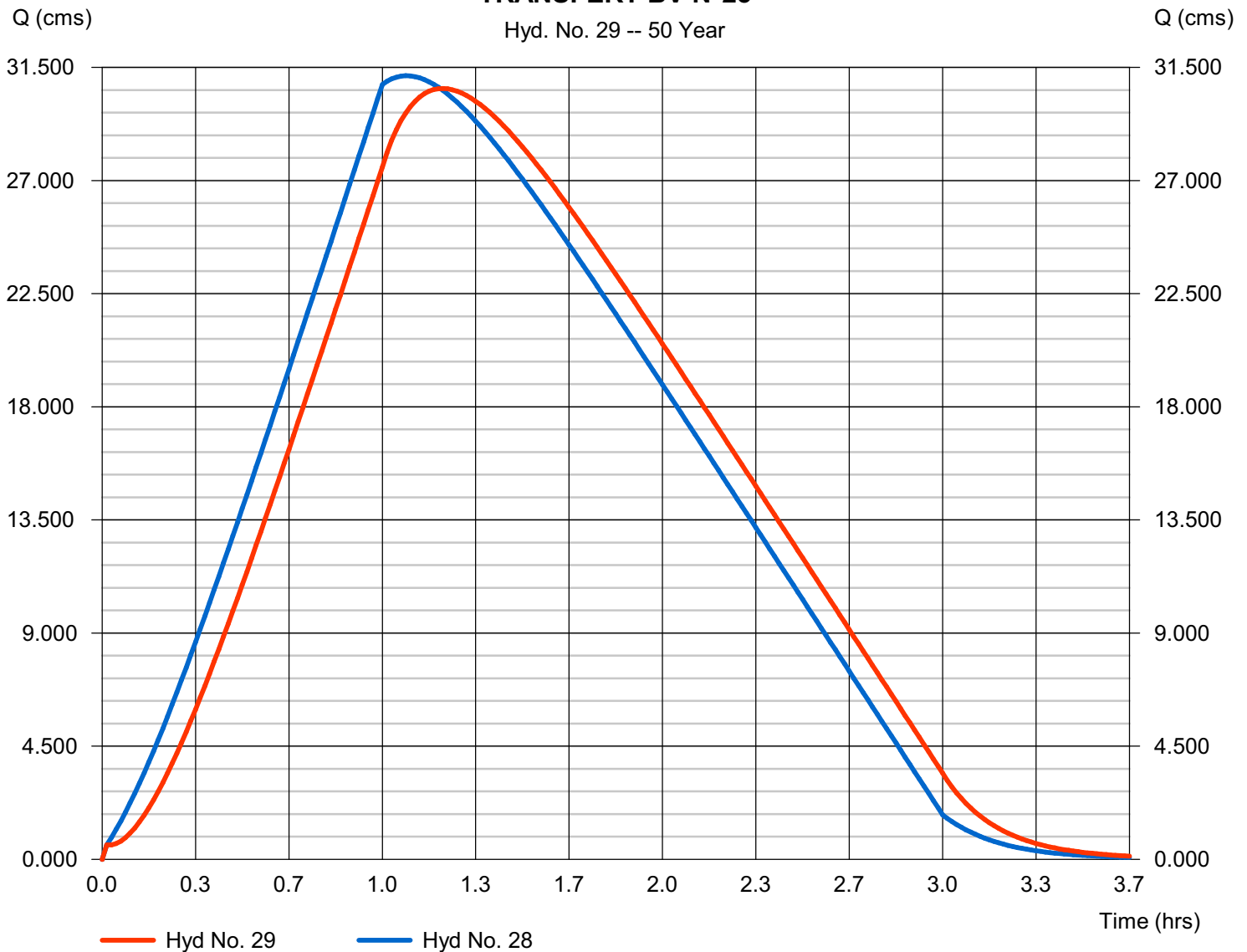
### TRANSFERT BV N°25

Hydrograph type	= Reach	Peak discharge	= 30.66 cms
Storm frequency	= 50 yrs	Time to peak	= 1.22 hrs
Time interval	= 1 min	Hyd. volume	= 185 741.4 cum
Inflow hyd. No.	= 28 - EXUTOIRE BV N°25	Section type	= Rectangular
Reach length	= 1063.0 m	Channel slope	= 0.3 %
Manning's n	= 0.025	Bottom width	= 2.0 m
Side slope	= 0.0:1	Max. depth	= 4.0 m
Rating curve x	= 0.931	Rating curve m	= 1.426
Ave. velocity	= 0.00 m/s	Routing coeff.	= 0.1728

Modified Att-Kin routing method used.

### TRANSFERT BV N°25

Hyd. No. 29 -- 50 Year



# Hydrograph Report

Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2010 by Autodesk, Inc. v9.25

vendredi, févr 5, 2010

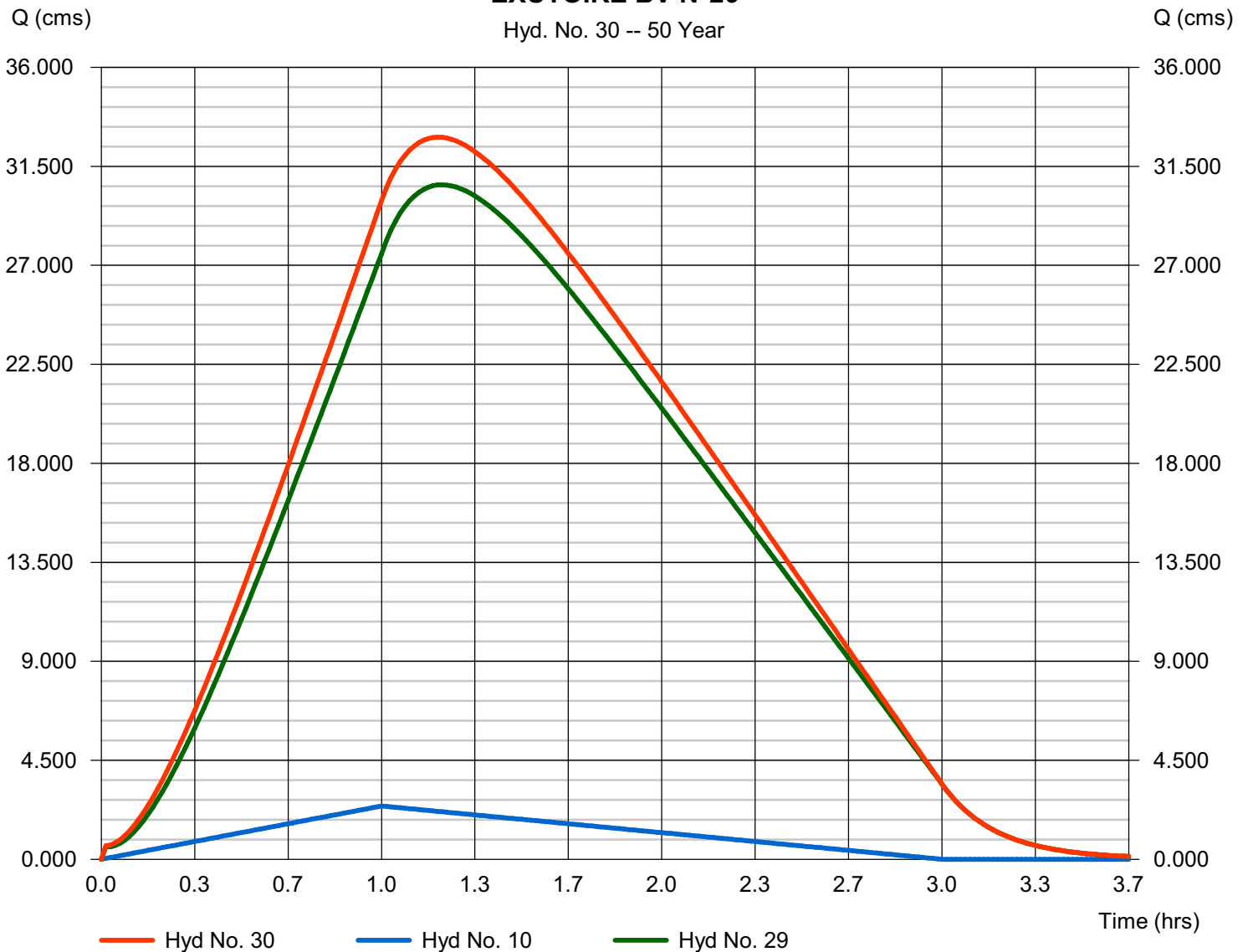
## Hyd. No. 30

EXUTOIRE BV N°26

Hydrograph type	= Combine	Peak discharge	= 32.83 cms
Storm frequency	= 50 yrs	Time to peak	= 1.20 hrs
Time interval	= 1 min	Hyd. volume	= 198 804.9 cum
Inflow hyds.	= 10, 29	Contrib. drain. area	= 109.400 hectare

### EXUTOIRE BV N°26

Hyd. No. 30 -- 50 Year



# Hydrograph Report

Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2010 by Autodesk, Inc. v9.25

vendredi, févr 5, 2010

## Hyd. No. 31

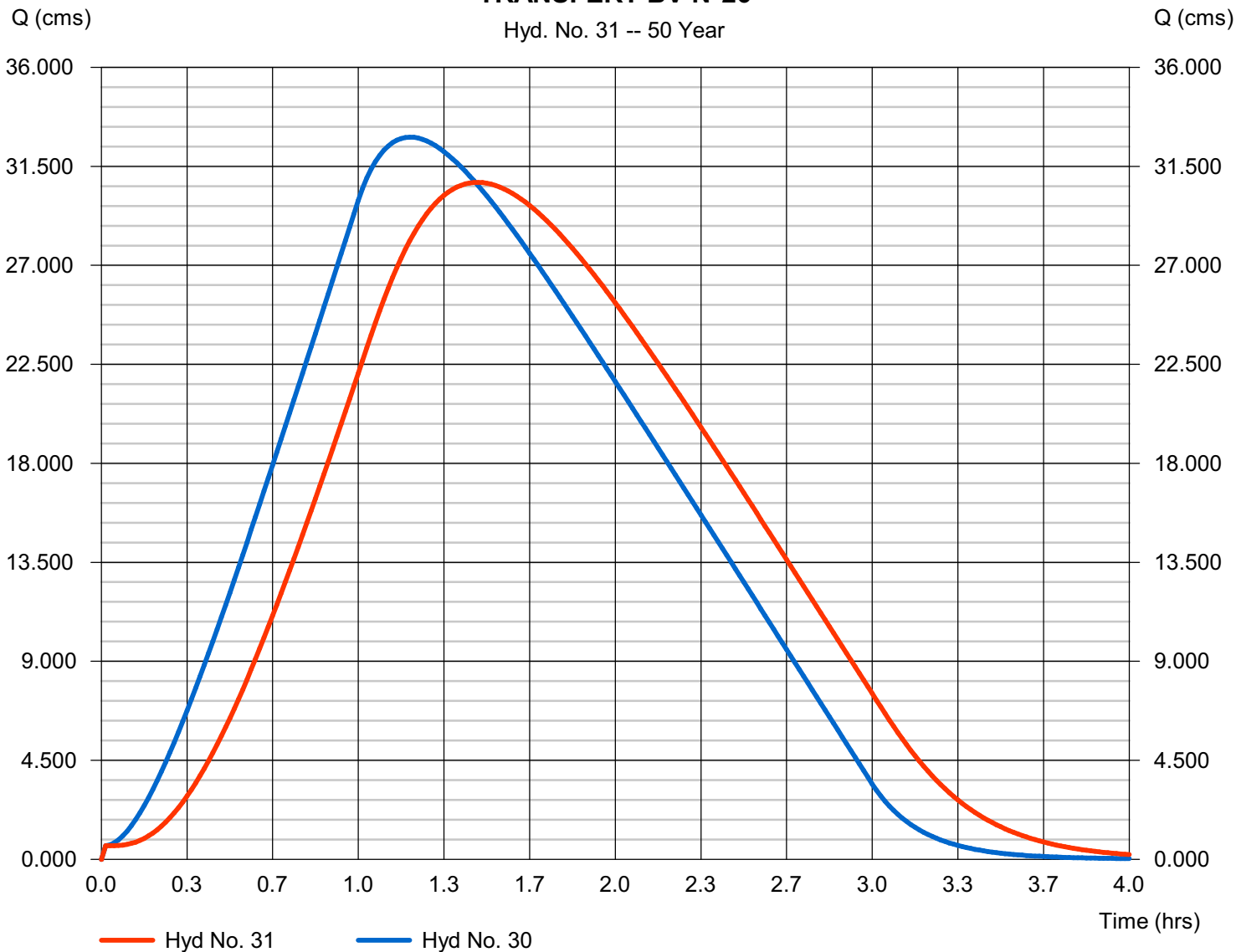
### TRANSFERT BV N°26

Hydrograph type	= Reach	Peak discharge	= 30.77 cms
Storm frequency	= 50 yrs	Time to peak	= 1.47 hrs
Time interval	= 1 min	Hyd. volume	= 199 299.7 cum
Inflow hyd. No.	= 30 - EXUTOIRE BV N°26	Section type	= Rectangular
Reach length	= 3286.0 m	Channel slope	= 0.6 %
Manning's n	= 0.026	Bottom width	= 2.0 m
Side slope	= 0.0:1	Max. depth	= 4.0 m
Rating curve x	= 1.266	Rating curve m	= 1.426
Ave. velocity	= 0.00 m/s	Routing coeff.	= 0.0742

Modified Att-Kin routing method used.

### TRANSFERT BV N°26

Hyd. No. 31 -- 50 Year



# Hydrograph Report

Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2010 by Autodesk, Inc. v9.25

vendredi, févr 5, 2010

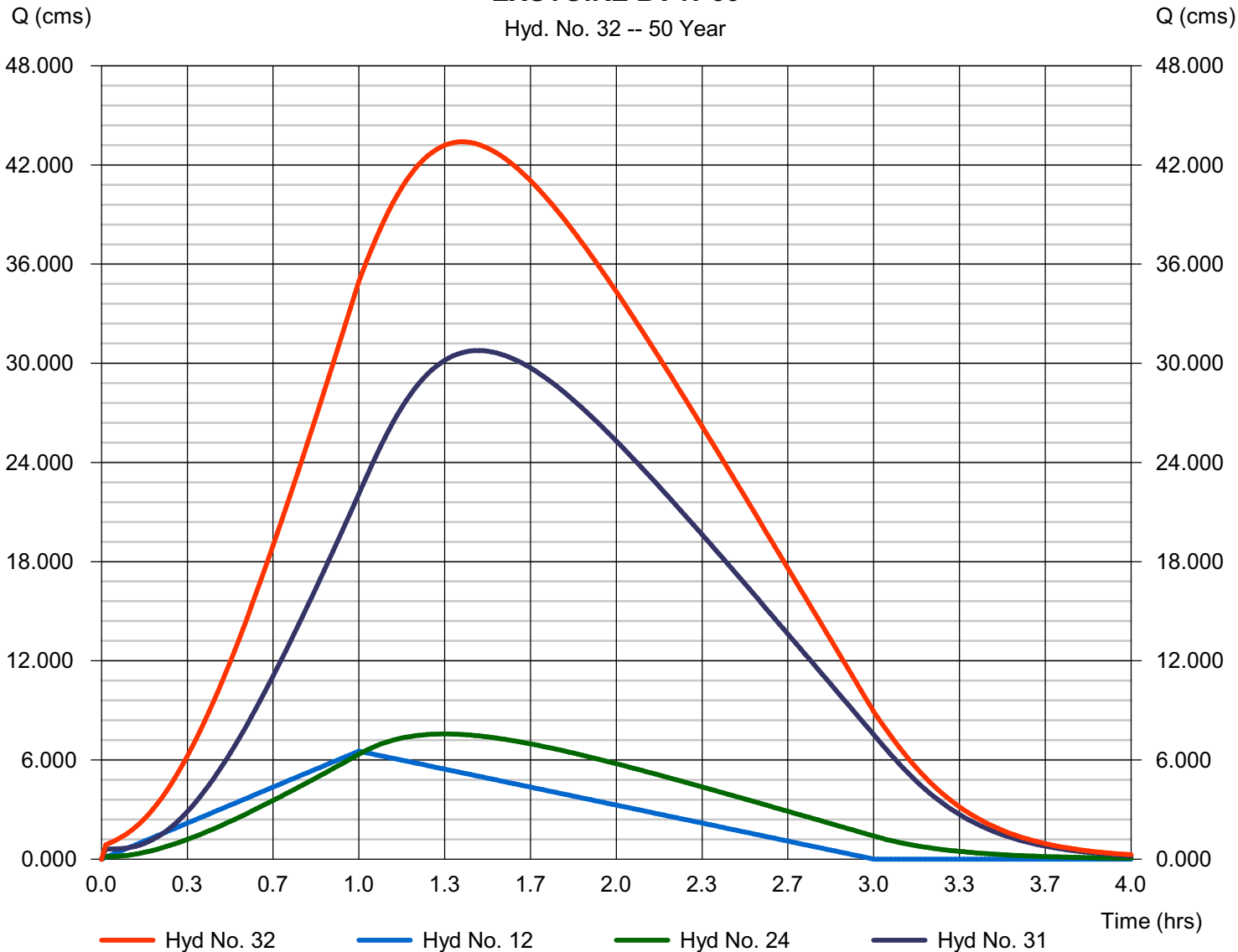
## Hyd. No. 32

EXUTOIRE BV N°33

Hydrograph type	= Combine	Peak discharge	= 43.40 cms
Storm frequency	= 50 yrs	Time to peak	= 1.40 hrs
Time interval	= 1 min	Hyd. volume	= 283 514.6 cum
Inflow hyds.	= 12, 24, 31	Contrib. drain. area	= 357.500 hectare

### EXUTOIRE BV N°33

Hyd. No. 32 -- 50 Year



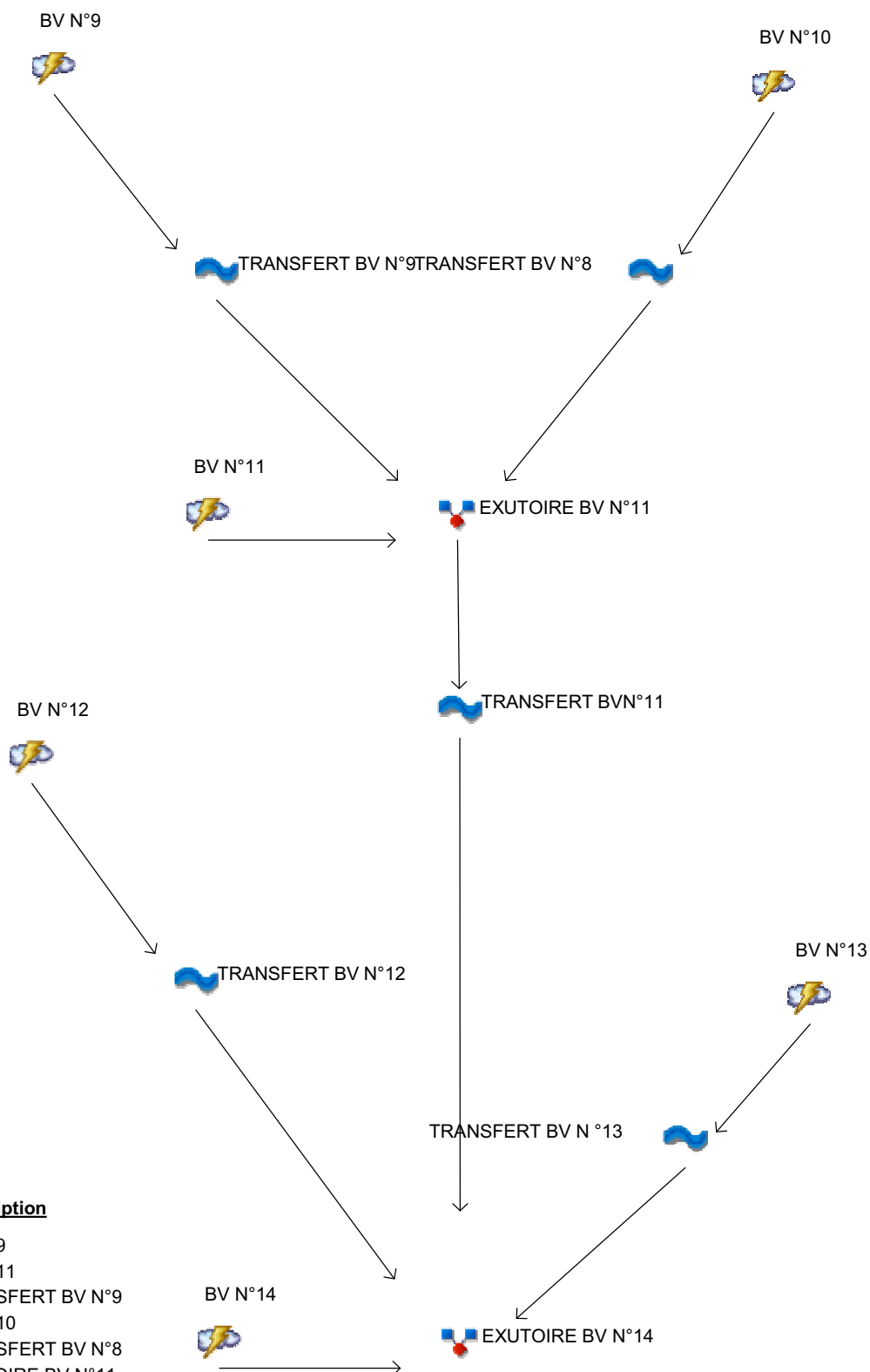
## Watershed Model Schematic..... 1

### 50 - Year

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Hydrograph No. 3, Rational, BV N°19.....	4
Hydrograph No. 4, Rational, BV N°20.....	5
Hydrograph No. 5, Rational, BV N°21.....	6
Hydrograph No. 6, Rational, BV N°22.....	7
Hydrograph No. 7, Rational, BV N°23.....	8
Hydrograph No. 8, Rational, BV N°24.....	9
Hydrograph No. 9, Rational, BV N°25.....	10
Hydrograph No. 10, Rational, BV N°26.....	11
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# Watershed Model Schematic

Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2010 by Autodesk, Inc. v9.25



## Legend

Hyd.	Origin	Description
1	Rational	BV N°9
2	Rational	BV N°11
3	Reach	TRANSFERT BV N°9
4	Rational	BV N°10
5	Reach	TRANSFERT BV N°8
6	Combine	EXUTOIRE BV N°11
7	Rational	BV N°12
8	Rational	BV N°13
9	Rational	BV N°14
10	Reach	TRANSFERT BV N°11
11	Reach	TRANSFERT BV N°12
12	Reach	TRANSFERT BV N°13
13	Combine	EXUTOIRE BV N°14

# Hydrograph Report

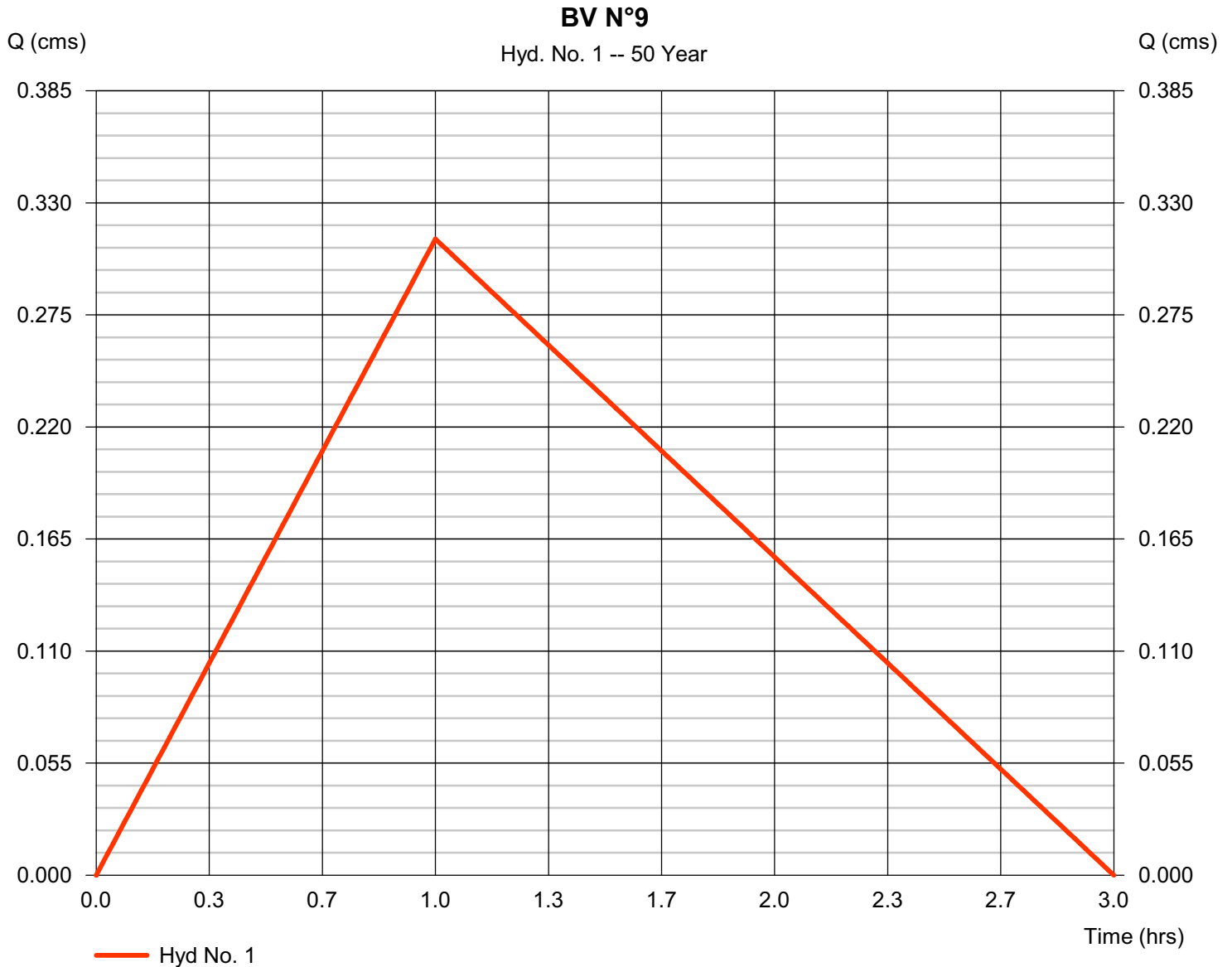
Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2010 by Autodesk, Inc. v9.25

vendredi, févr 5, 2010

## Hyd. No. 1

BV N°9

Hydrograph type	= Rational	Peak discharge	= 0.312 cms
Storm frequency	= 50 yrs	Time to peak	= 1.00 hrs
Time interval	= 1 min	Hyd. volume	= 1 686.3 cum
Drainage area	= 11.200 hectare	Runoff coeff.	= 0.29
Intensity	= 34.900 mm/hr	Tc by User	= 60.00 min
IDF Curve	= IDF_ALSACE.IDF	Asc/Rec limb fact	= 1/2



# Hydrograph Report

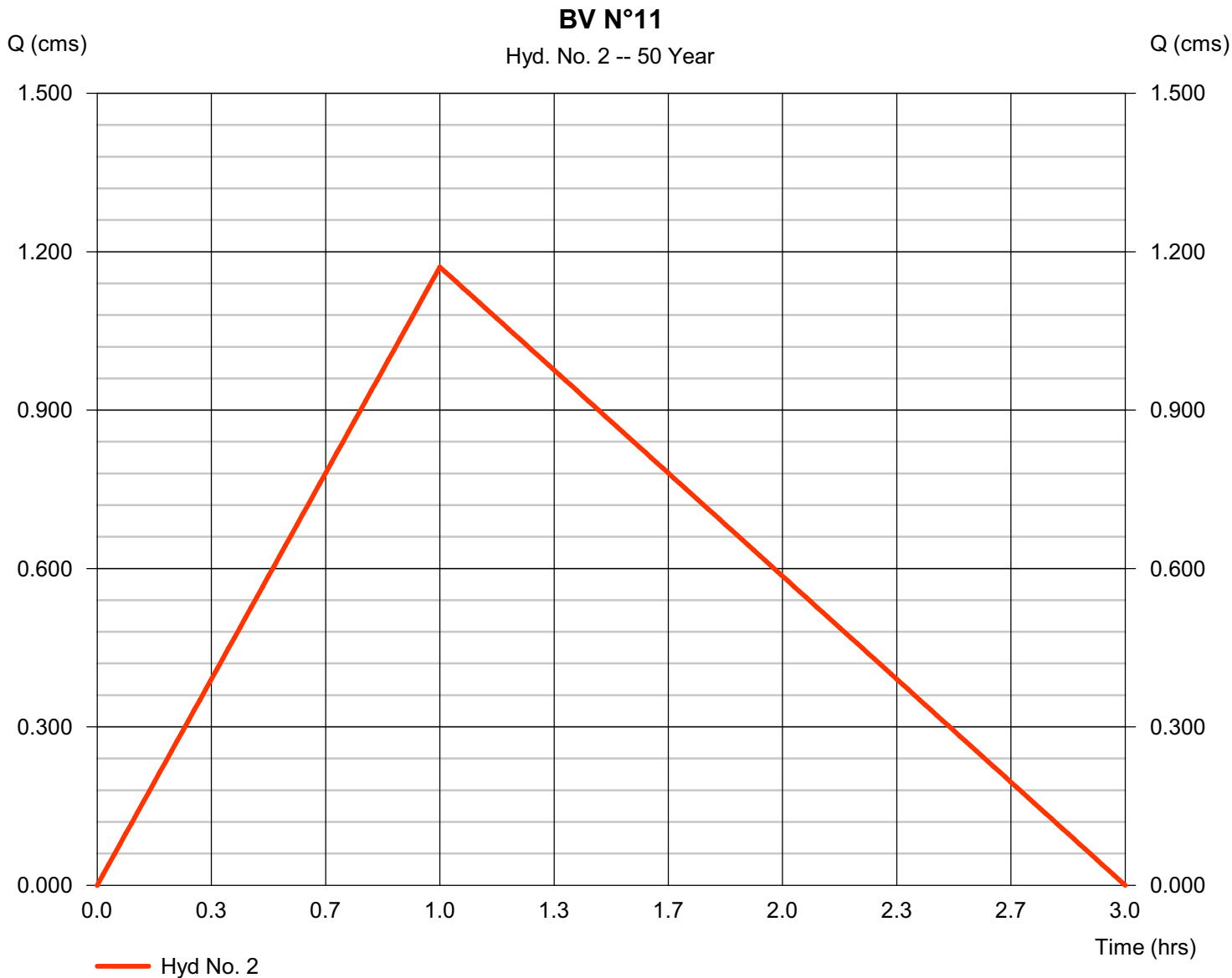
Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2010 by Autodesk, Inc. v9.25

vendredi, févr 5, 2010

## Hyd. No. 2

BV N°11

Hydrograph type	= Rational	Peak discharge	= 1.171 cms
Storm frequency	= 50 yrs	Time to peak	= 1.00 hrs
Time interval	= 1 min	Hyd. volume	= 6 323.6 cum
Drainage area	= 60.900 hectare	Runoff coeff.	= 0.2
Intensity	= 34.900 mm/hr	Tc by User	= 60.00 min
IDF Curve	= IDF_ALSACE.IDF	Asc/Rec limb fact	= 1/2





# Hydrograph Report

Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2010 by Autodesk, Inc. v9.25

vendredi, févr 5, 2010

## Hyd. No. 3

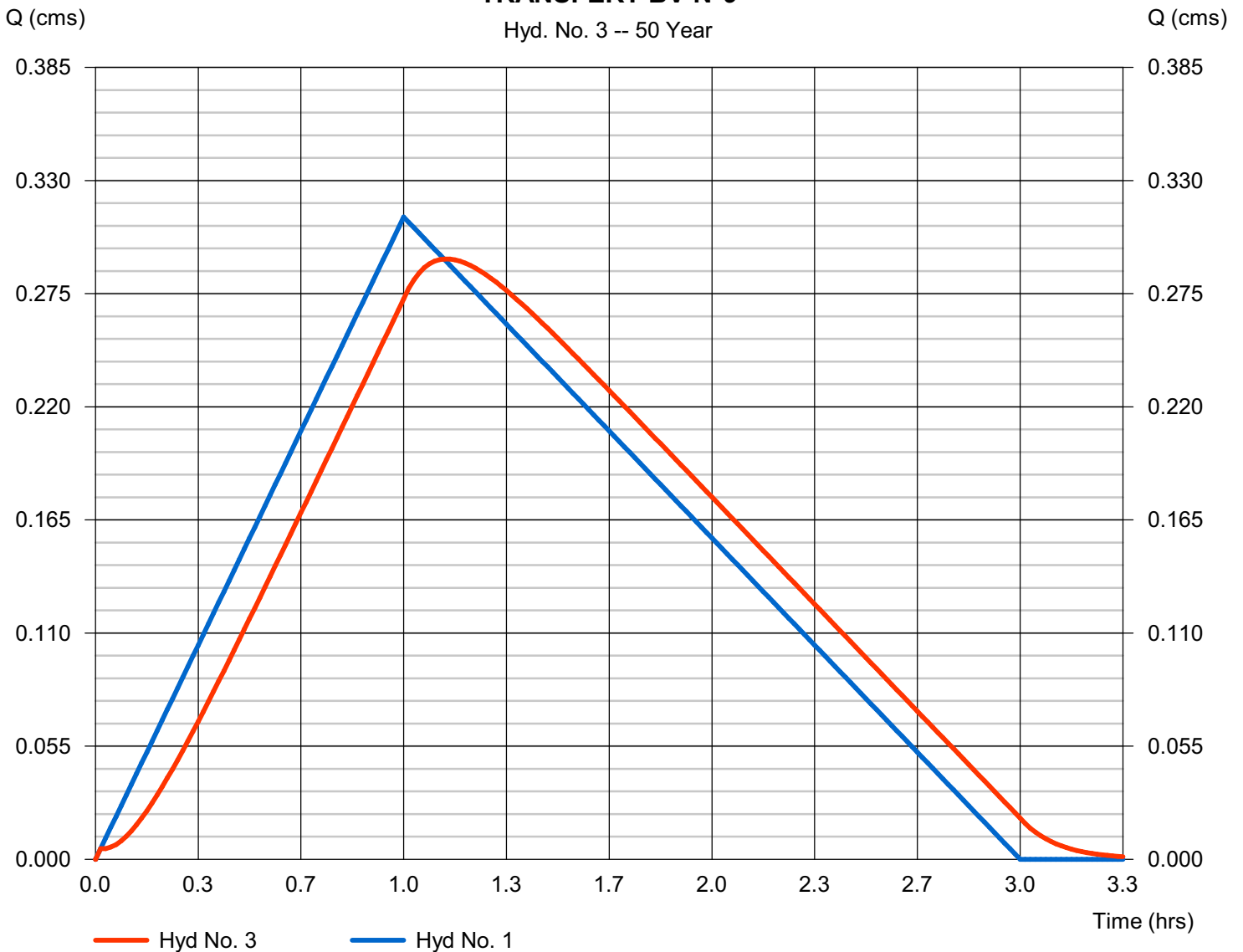
### TRANSFERT BV N°9

Hydrograph type	= Reach	Peak discharge	= 0.292 cms
Storm frequency	= 50 yrs	Time to peak	= 1.13 hrs
Time interval	= 1 min	Hyd. volume	= 1 688.6 cum
Inflow hyd. No.	= 1 - BV N°9	Section type	= Rectangular
Reach length	= 816.0 m	Channel slope	= 3.0 %
Manning's n	= 0.025	Bottom width	= 2.0 m
Side slope	= 0.0:1	Max. depth	= 4.0 m
Rating curve x	= 2.943	Rating curve m	= 1.426
Ave. velocity	= 1.33 m/s	Routing coeff.	= 0.1305

Modified Att-Kin routing method used.

### TRANSFERT BV N°9

Hyd. No. 3 -- 50 Year



# Hydrograph Report

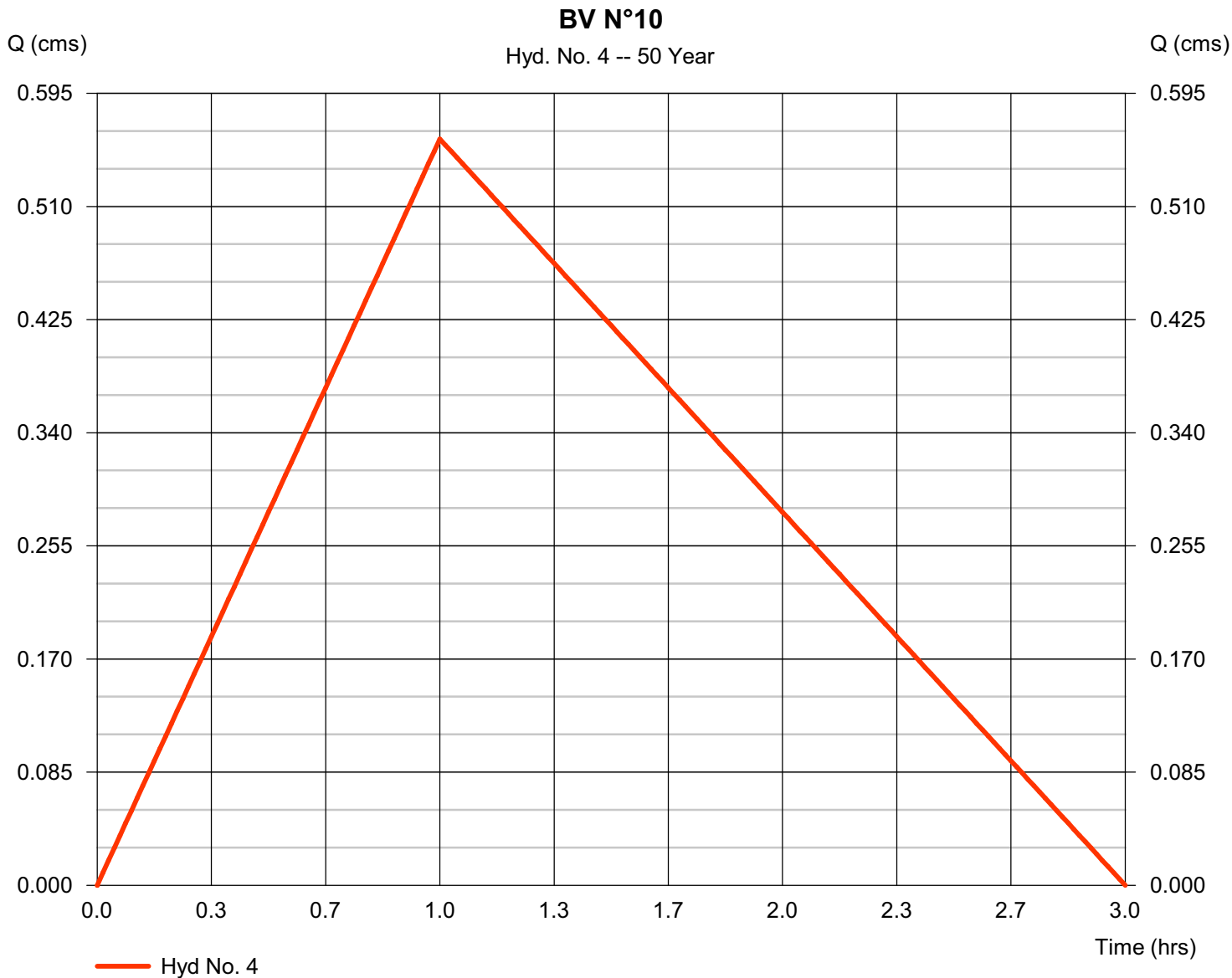
Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2010 by Autodesk, Inc. v9.25

vendredi, févr 5, 2010

## Hyd. No. 4

BV N°10

Hydrograph type	= Rational	Peak discharge	= 0.561 cms
Storm frequency	= 50 yrs	Time to peak	= 1.00 hrs
Time interval	= 1 min	Hyd. volume	= 3 027.8 cum
Drainage area	= 24.300 hectare	Runoff coeff.	= 0.24
Intensity	= 34.900 mm/hr	Tc by User	= 60.00 min
IDF Curve	= IDF_ALSACE.IDF	Asc/Rec limb fact	= 1/2



# Hydrograph Report

Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2010 by Autodesk, Inc. v9.25

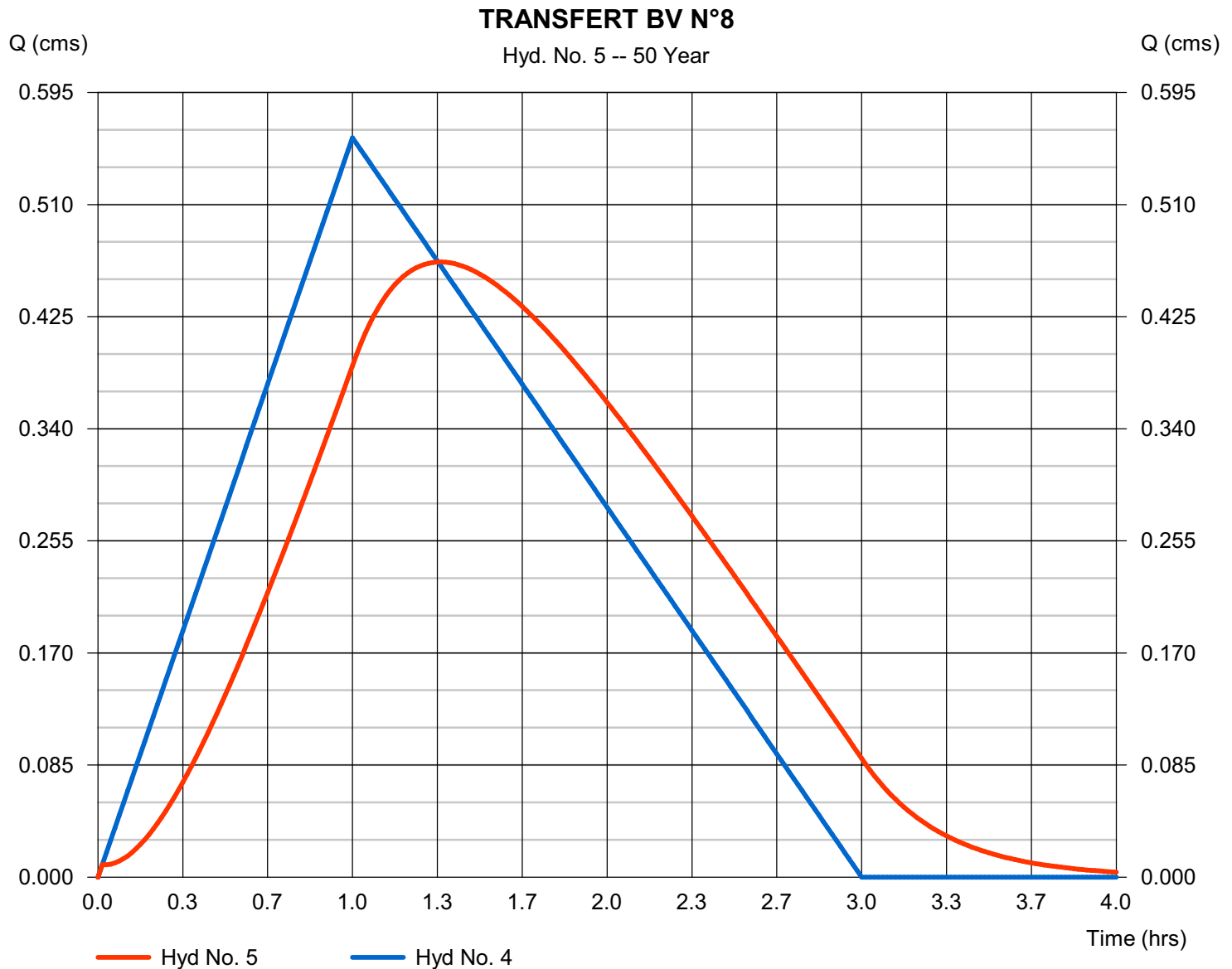
vendredi, févr 5, 2010

## Hyd. No. 5

### TRANSFERT BV N°8

Hydrograph type	= Reach	Peak discharge	= 0.466 cms
Storm frequency	= 50 yrs	Time to peak	= 1.35 hrs
Time interval	= 1 min	Hyd. volume	= 3 038.4 cum
Inflow hyd. No.	= 4 - BV N°10	Section type	= Rectangular
Reach length	= 1705.0 m	Channel slope	= 0.9 %
Manning's n	= 0.025	Bottom width	= 2.0 m
Side slope	= 0.0:1	Max. depth	= 4.0 m
Rating curve x	= 1.648	Rating curve m	= 1.426
Ave. velocity	= 1.06 m/s	Routing coeff.	= 0.0516

Modified Att-Kin routing method used.



# Hydrograph Report

Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2010 by Autodesk, Inc. v9.25

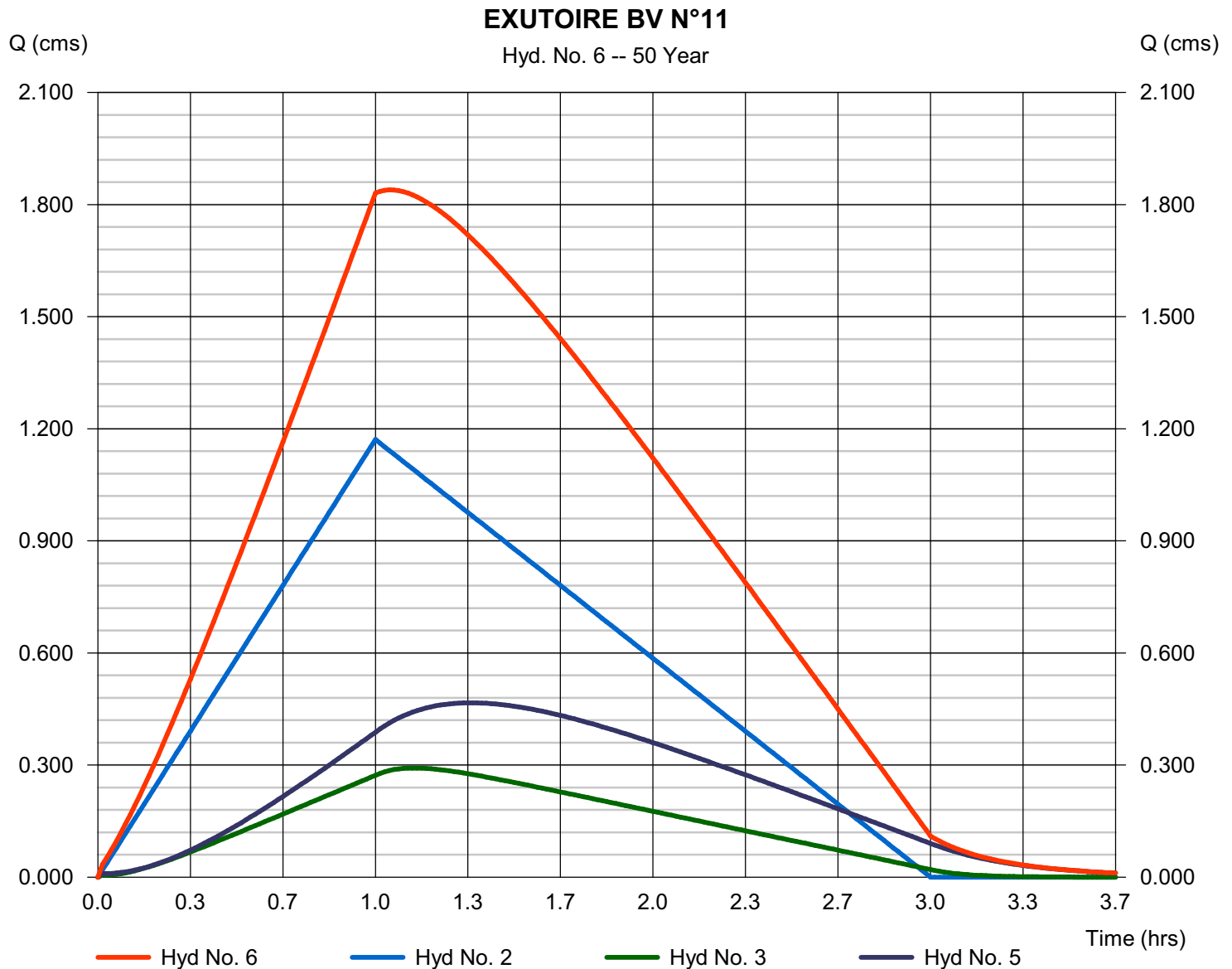
vendredi, févr 5, 2010

## Hyd. No. 6

EXUTOIRE BV N°11

Hydrograph type = Combine  
 Storm frequency = 50 yrs  
 Time interval = 1 min  
 Inflow hyds. = 2, 3, 5

Peak discharge = 1.839 cms  
 Time to peak = 1.05 hrs  
 Hyd. volume = 11 050.5 cum  
 Contrib. drain. area = 60.900 hectare



# Hydrograph Report

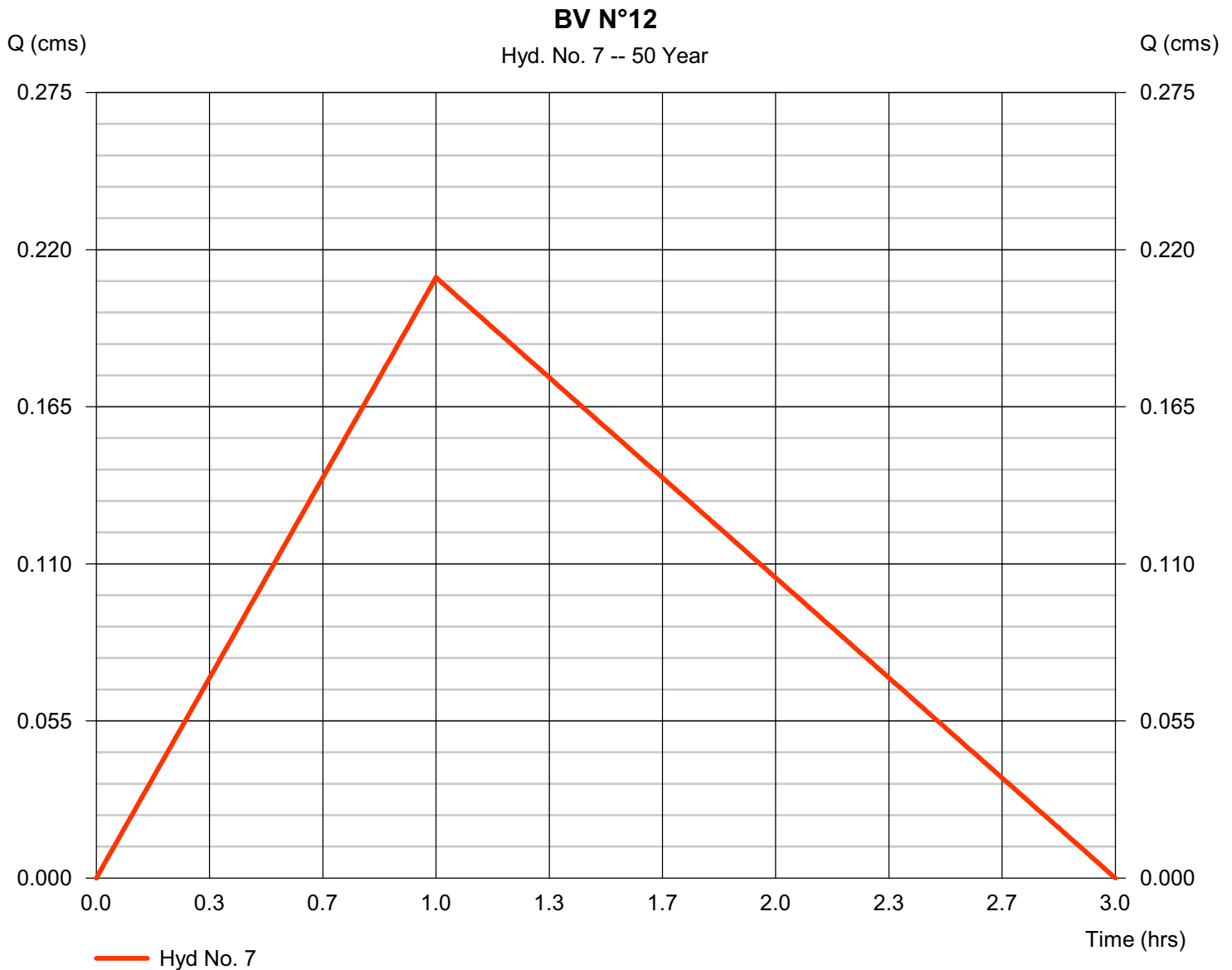
Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2010 by Autodesk, Inc. v9.25

vendredi, févr 5, 2010

## Hyd. No. 7

BV N°12

Hydrograph type	= Rational	Peak discharge	= 0.210 cms
Storm frequency	= 50 yrs	Time to peak	= 1.00 hrs
Time interval	= 1 min	Hyd. volume	= 1 135.4 cum
Drainage area	= 8.100 hectare	Runoff coeff.	= 0.27
Intensity	= 34.900 mm/hr	Tc by User	= 60.00 min
IDF Curve	= IDF_ALSACE.IDF	Asc/Rec limb fact	= 1/2



# Hydrograph Report

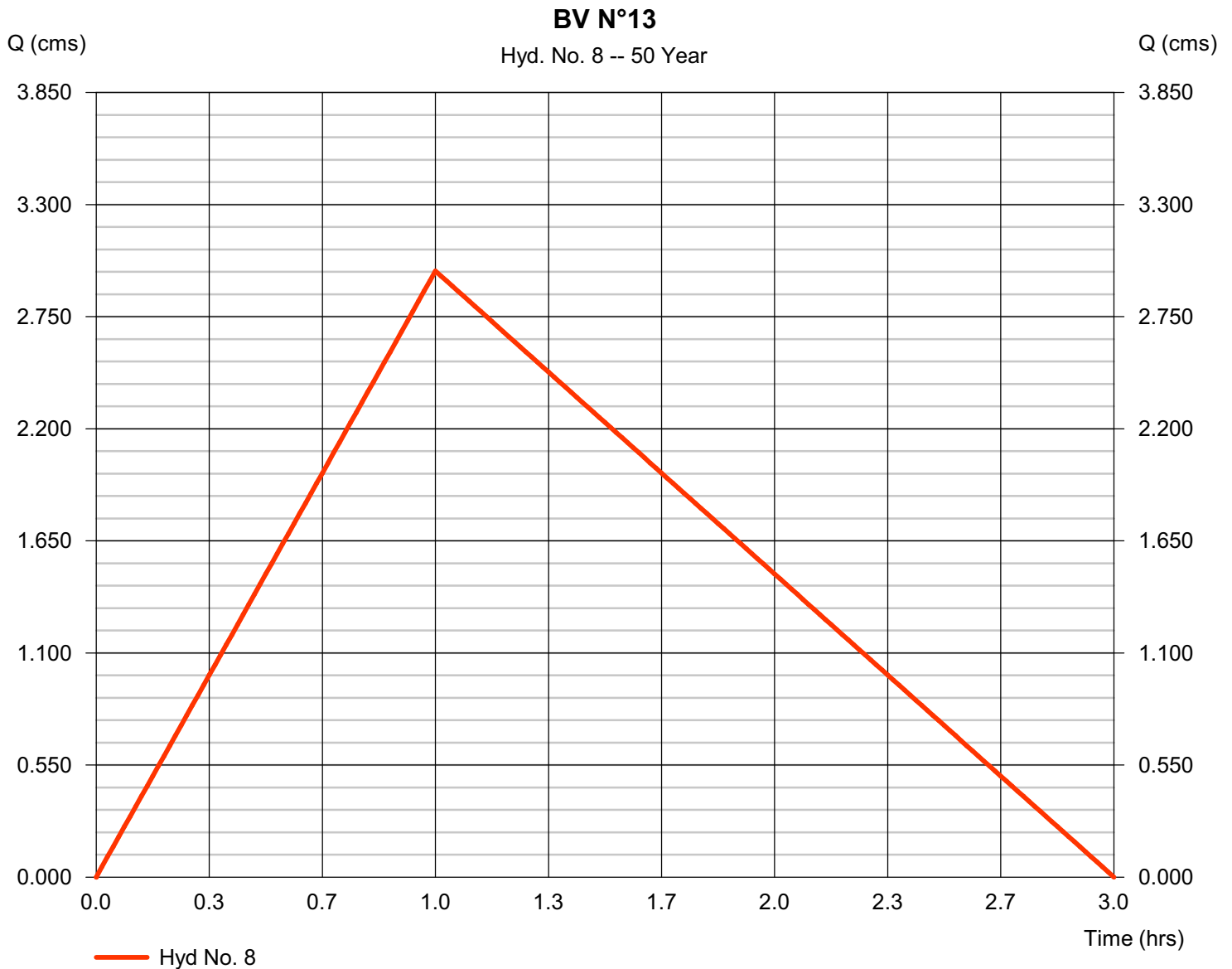
Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2010 by Autodesk, Inc. v9.25

vendredi, févr 5, 2010

## Hyd. No. 8

BV N°13

Hydrograph type	= Rational	Peak discharge	= 2.974 cms
Storm frequency	= 50 yrs	Time to peak	= 1.00 hrs
Time interval	= 1 min	Hyd. volume	= 16 059.2 cum
Drainage area	= 140.600 hectare	Runoff coeff.	= 0.22
Intensity	= 34.900 mm/hr	Tc by User	= 60.00 min
IDF Curve	= IDF_ALSACE.IDF	Asc/Rec limb fact	= 1/2



# Hydrograph Report

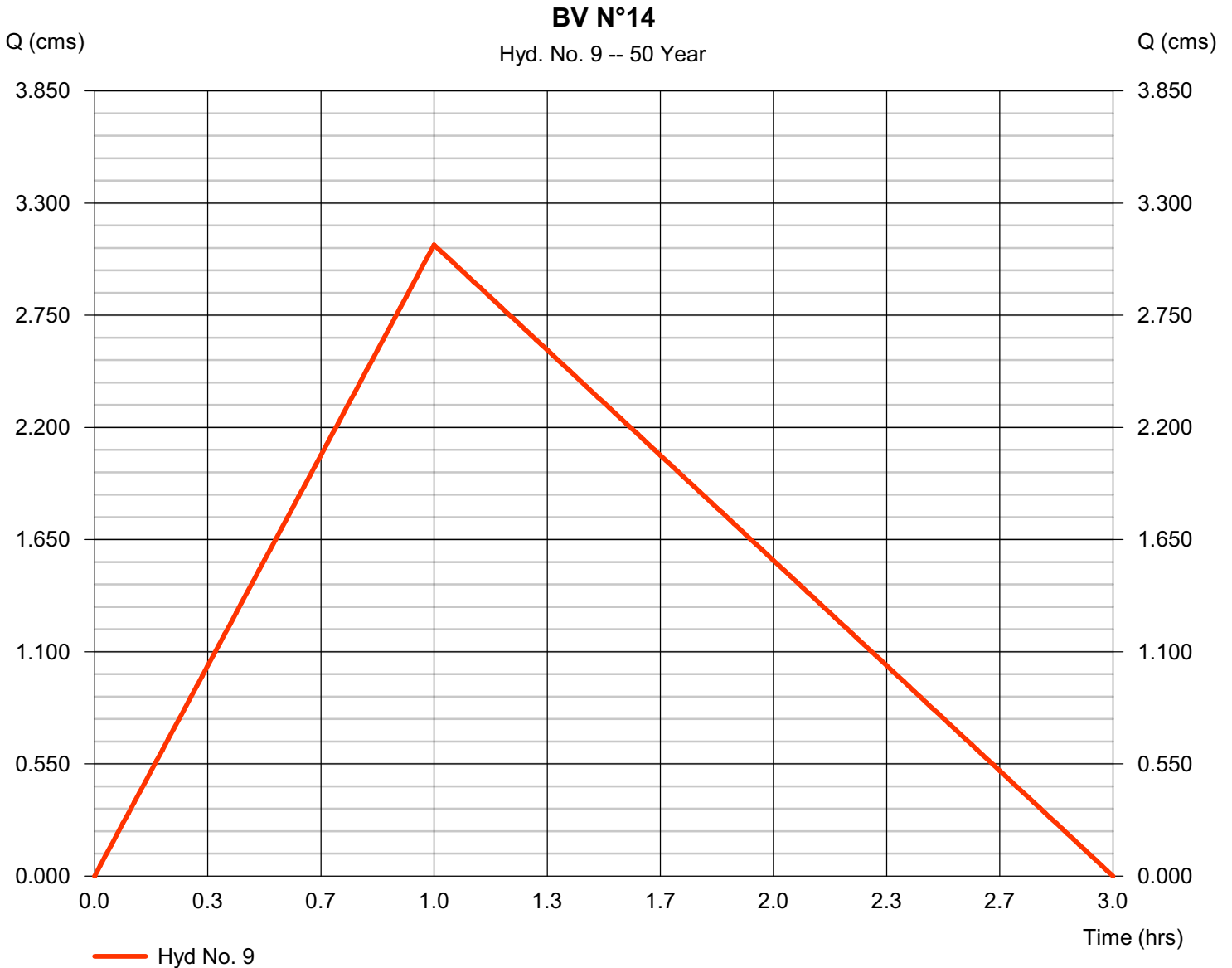
Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2010 by Autodesk, Inc. v9.25

vendredi, févr 5, 2010

## Hyd. No. 9

BV N°14

Hydrograph type	= Rational	Peak discharge	= 3.095 cms
Storm frequency	= 50 yrs	Time to peak	= 1.00 hrs
Time interval	= 1 min	Hyd. volume	= 16 713.8 cum
Drainage area	= 153.300 hectare	Runoff coeff.	= 0.21
Intensity	= 34.900 mm/hr	Tc by User	= 60.00 min
IDF Curve	= IDF_ALSACE.IDF	Asc/Rec limb fact	= 1/2



# Hydrograph Report

Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2010 by Autodesk, Inc. v9.25

vendredi, févr 5, 2010

## Hyd. No. 10

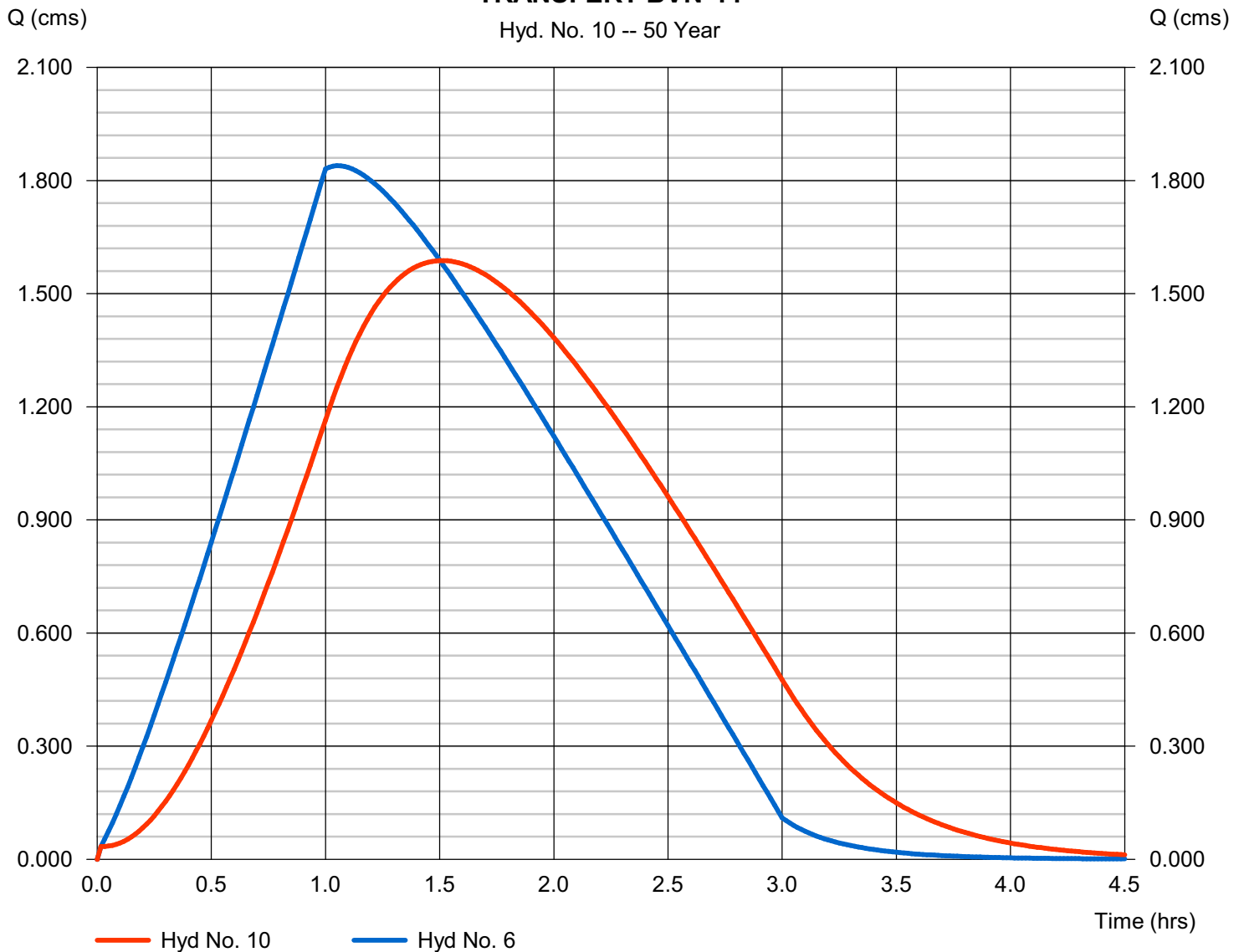
### TRANSFERT BVN°11

Hydrograph type	= Reach	Peak discharge	= 1.588 cms
Storm frequency	= 50 yrs	Time to peak	= 1.52 hrs
Time interval	= 1 min	Hyd. volume	= 11 095.1 cum
Inflow hyd. No.	= 6 - EXUTOIRE BV N°11	Section type	= Trapezoidal
Reach length	= 2352.0 m	Channel slope	= 0.6 %
Manning's n	= 0.025	Bottom width	= 2.0 m
Side slope	= 0.0:1	Max. depth	= 4.0 m
Rating curve x	= 1.305	Rating curve m	= 1.426
Ave. velocity	= 1.28 m/s	Routing coeff.	= 0.0455

Modified Att-Kin routing method used.

### TRANSFERT BVN°11

Hyd. No. 10 -- 50 Year





# Hydrograph Report

Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2010 by Autodesk, Inc. v9.25

vendredi, févr 5, 2010

## Hyd. No. 11

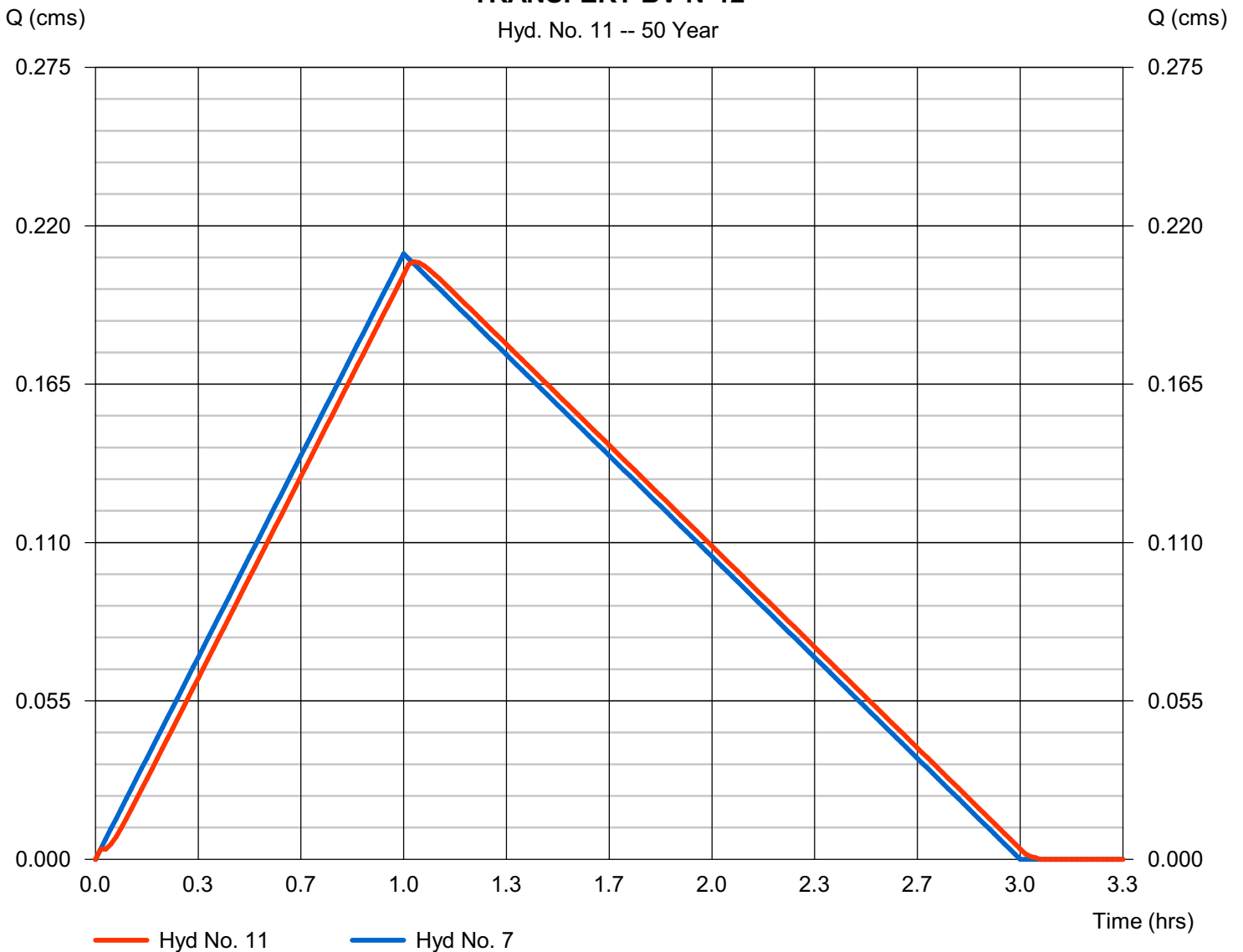
### TRANSFERT BV N°12

Hydrograph type	= Reach	Peak discharge	= 0.207 cms
Storm frequency	= 50 yrs	Time to peak	= 1.03 hrs
Time interval	= 1 min	Hyd. volume	= 1 135.8 cum
Inflow hyd. No.	= 7 - BV N°12	Section type	= Rectangular
Reach length	= 268.0 m	Channel slope	= 3.3 %
Manning's n	= 0.011	Bottom width	= 3.5 m
Side slope	= 0.0:1	Max. depth	= 0.1 m
Rating curve x	= 4.831	Rating curve m	= 1.639
Ave. velocity	= 1.74 m/s	Routing coeff.	= 0.4842

Modified Att-Kin routing method used.

### TRANSFERT BV N°12

Hyd. No. 11 -- 50 Year



# Hydrograph Report

Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2010 by Autodesk, Inc. v9.25

vendredi, févr 5, 2010

## Hyd. No. 12

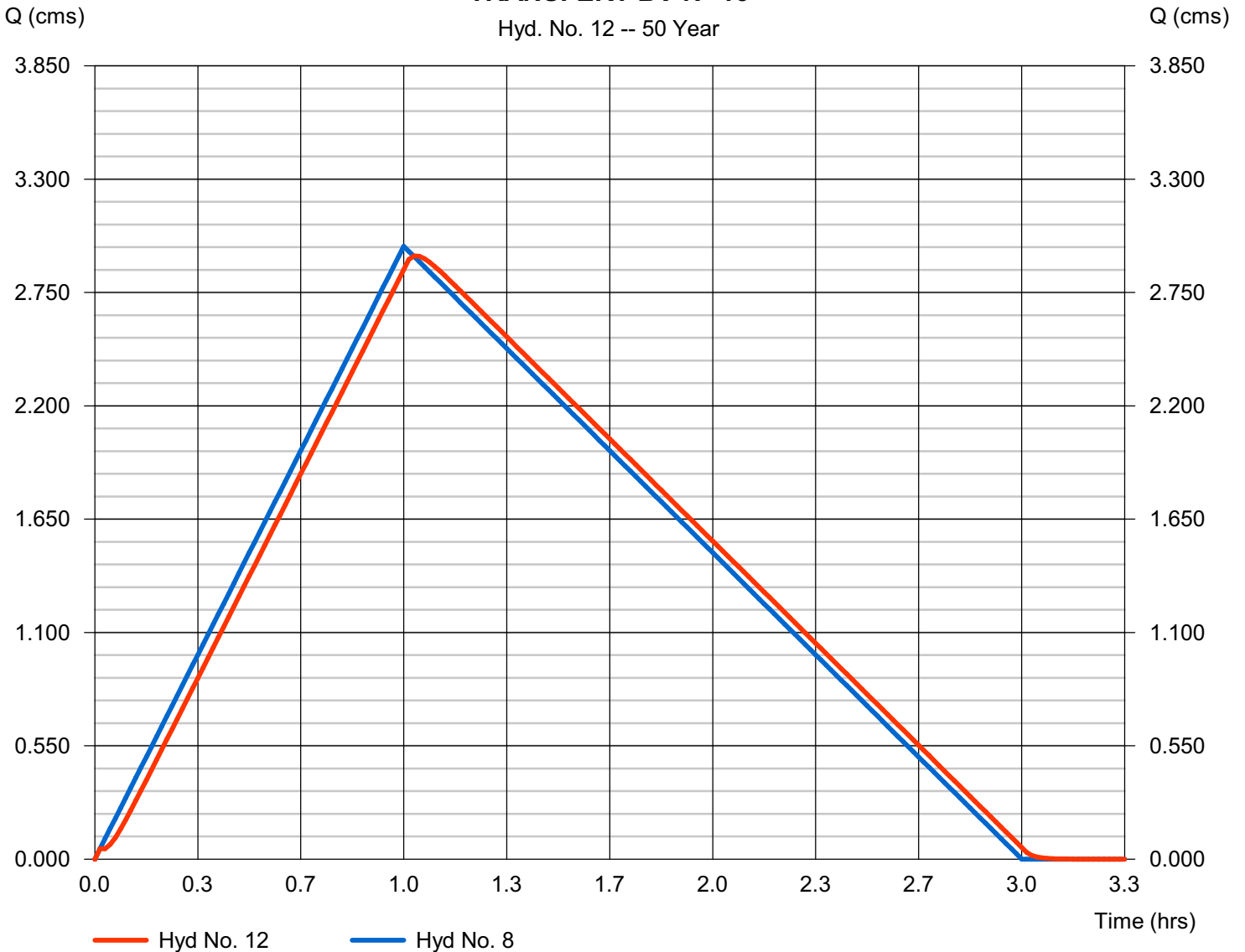
TRANSFERT BV N °13

Hydrograph type	= Reach	Peak discharge	= 2.927 cms
Storm frequency	= 50 yrs	Time to peak	= 1.03 hrs
Time interval	= 1 min	Hyd. volume	= 16 065.9 cum
Inflow hyd. No.	= 8 - BV N°13	Section type	= Rectangular
Reach length	= 485.0 m	Channel slope	= 1.4 %
Manning's n	= 0.013	Bottom width	= 0.7 m
Side slope	= 0.0:1	Max. depth	= 1.4 m
Rating curve x	= 7.789	Rating curve m	= 1.213
Ave. velocity	= 3.75 m/s	Routing coeff.	= 0.4386

Modified Att-Kin routing method used.

### TRANSFERT BV N °13

Hyd. No. 12 -- 50 Year



# Hydrograph Report

Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2010 by Autodesk, Inc. v9.25

vendredi, févr 5, 2010

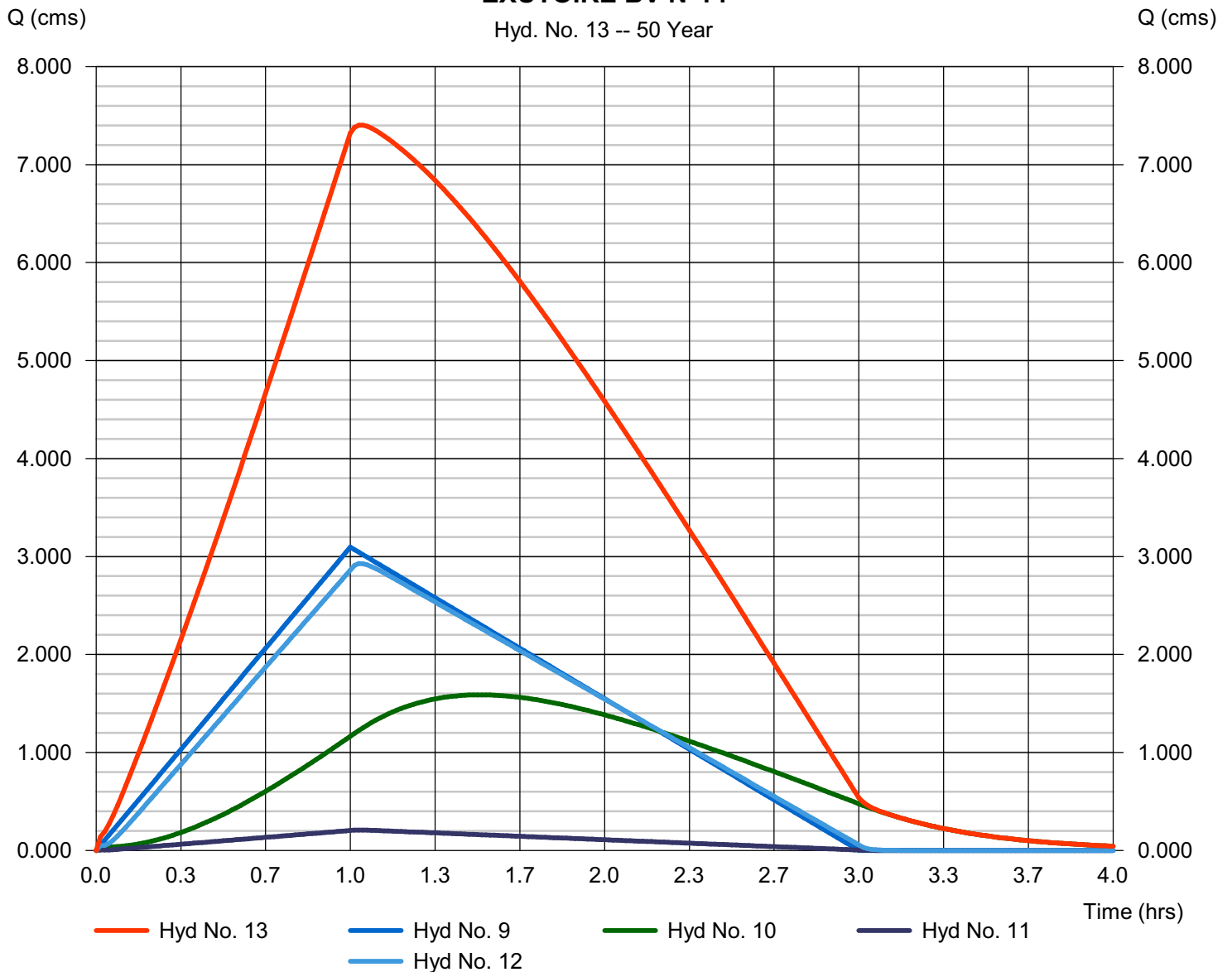
## Hyd. No. 13

EXUTOIRE BV N°14

Hydrograph type	= Combine	Peak discharge	= 7.403 cms
Storm frequency	= 50 yrs	Time to peak	= 1.05 hrs
Time interval	= 1 min	Hyd. volume	= 45 010.7 cum
Inflow hyds.	= 9, 10, 11, 12	Contrib. drain. area	= 153.300 hectare

### EXUTOIRE BV N°14

Hyd. No. 13 -- 50 Year



## **Watershed Model Schematic..... 1**

### **50 - Year**

#### **Hydrograph Reports..... 2**

Hydrograph No. 1, Rational, BV N°9..... 2

Hydrograph No. 2, Rational, BV N°11..... 3

Hydrograph No. 3, Reach, TRANSFERT BV N°9..... 4

Hydrograph No. 4, Rational, BV N°10..... 5

Hydrograph No. 5, Reach, TRANSFERT BV N°8..... 6

Hydrograph No. 6, Combine, EXUTOIRE BV N°11..... 7

Hydrograph No. 7, Rational, BV N°12..... 8

Hydrograph No. 8, Rational, BV N°13..... 9

Hydrograph No. 9, Rational, BV N°14..... 10

Hydrograph No. 10, Reach, TRANSFERT BV N°11..... 11

Hydrograph No. 11, Reach, TRANSFERT BV N°12..... 12

Hydrograph No. 12, Reach, TRANSFERT BV N °13..... 13

Hydrograph No. 13, Combine, EXUTOIRE BV N°14..... 14

# Watershed Model Schematic

Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2010 by Autodesk, Inc. v9.25

BV N°1



## Legend

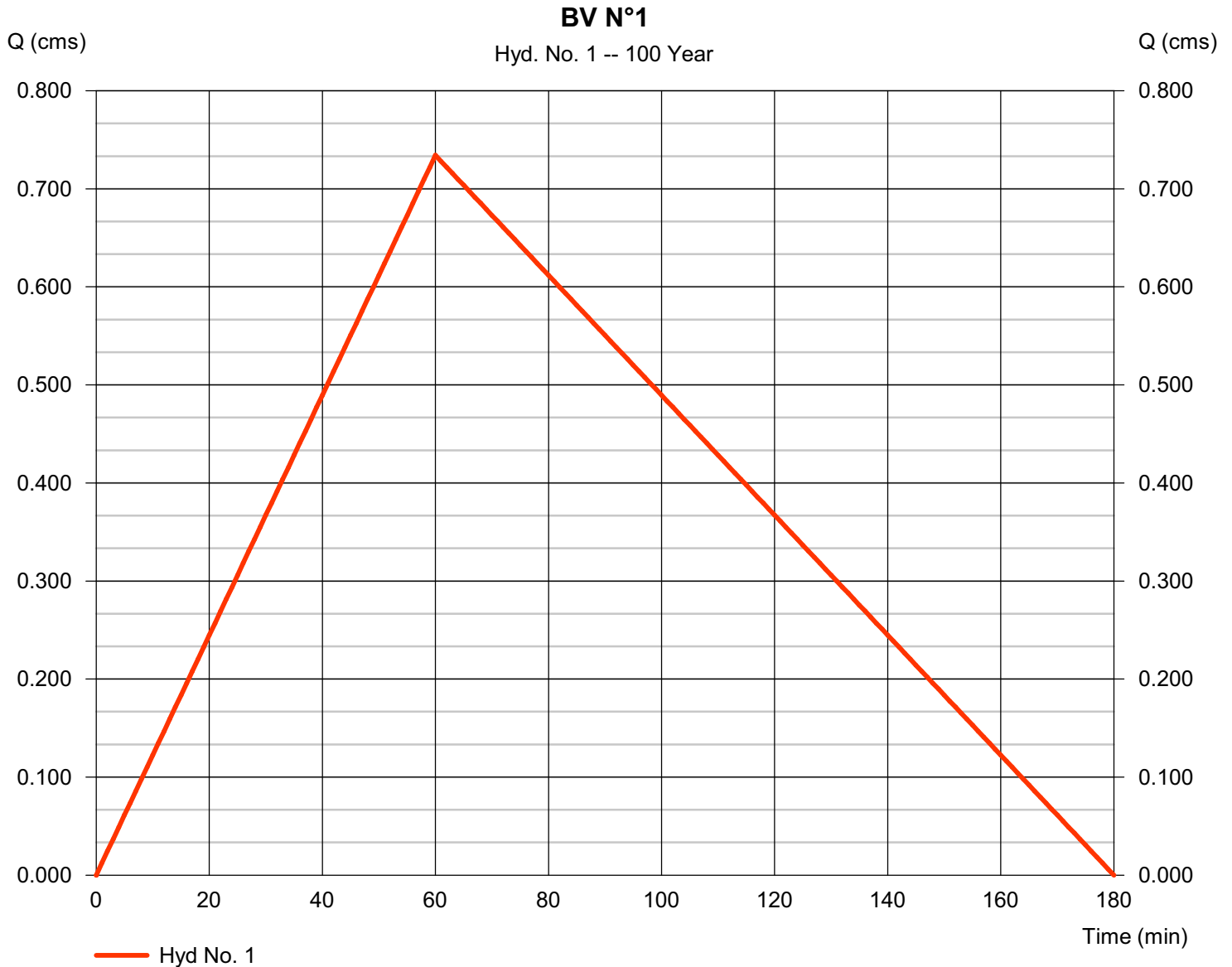
<u>Hyd.</u>	<u>Origin</u>	<u>Description</u>
1	Rational	BV N°1

# Hydrograph Report

## Hyd. No. 1

BV N°1

Hydrograph type	= Rational	Peak discharge	= 0.734 cms
Storm frequency	= 100 yrs	Time to peak	= 60 min
Time interval	= 1 min	Hyd. volume	= 3 964.7 cum
Drainage area	= 29.300 hectare	Runoff coeff.	= 0.24
Intensity	= 37.900 mm/hr	Tc by User	= 60.00 min
IDF Curve	= IDF_ALSACE.IDF	Asc/Rec limb fact	= 1/2



# Watershed Model Schematic

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BV N°2



## **Legend**

<b><u>Hyd.</u></b>	<b><u>Origin</u></b>	<b><u>Description</u></b>
1	Rational	BV N°2

# Hydrograph Report

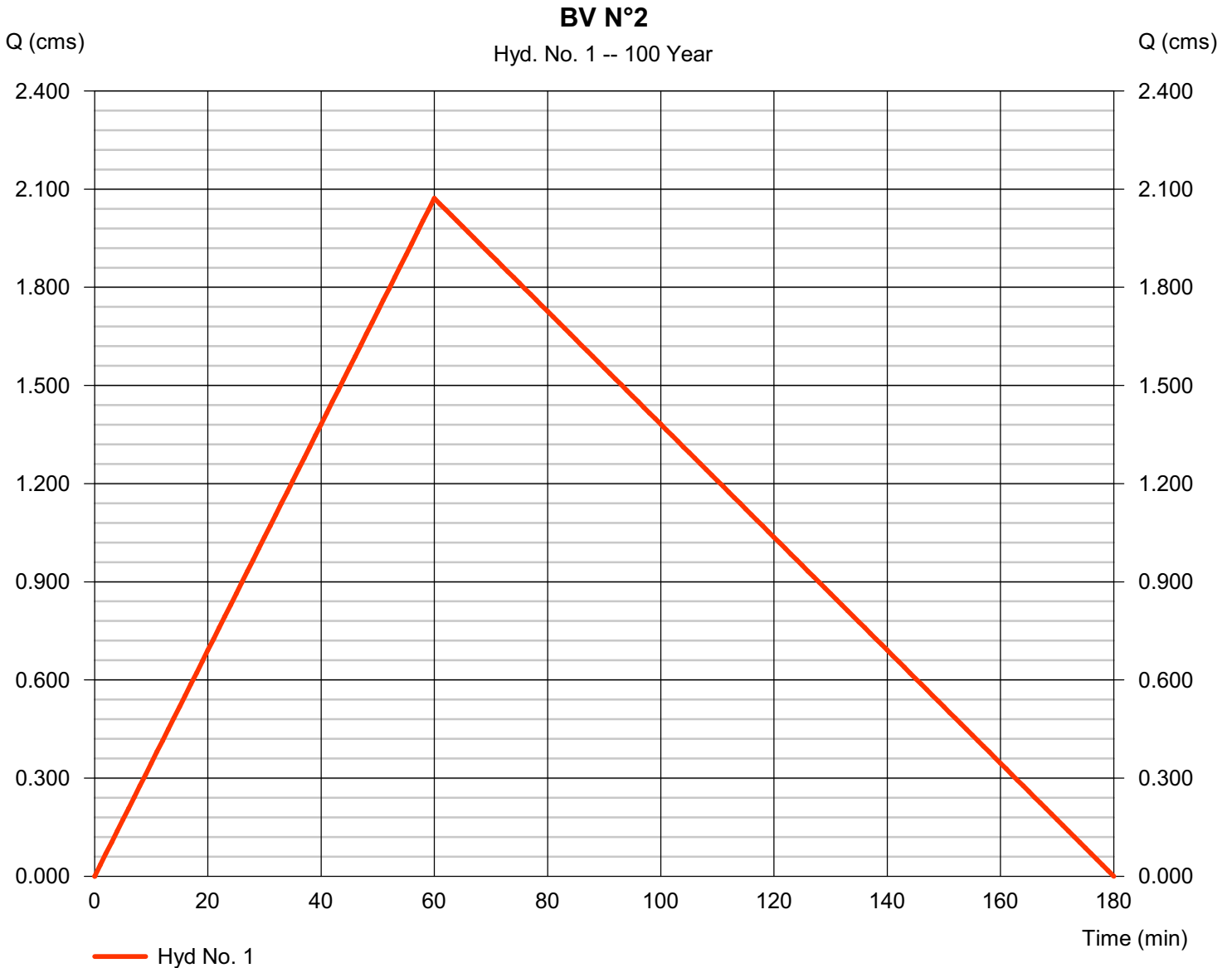
Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2010 by Autodesk, Inc. v9.25

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## Hyd. No. 1

BV N°2

Hydrograph type	= Rational	Peak discharge	= 2.072 cms
Storm frequency	= 100 yrs	Time to peak	= 60 min
Time interval	= 1 min	Hyd. volume	= 11 188.7 cum
Drainage area	= 94.500 hectare	Runoff coeff.	= 0.21
Intensity	= 37.900 mm/hr	Tc by User	= 60.00 min
IDF Curve	= IDF_ALSACE.IDF	Asc/Rec limb fact	= 1/2





# Watershed Model Schematic

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BV N°3



## **Legend**

<b><u>Hyd.</u></b>	<b><u>Origin</u></b>	<b><u>Description</u></b>
1	Rational	BV N°3

# Hydrograph Report

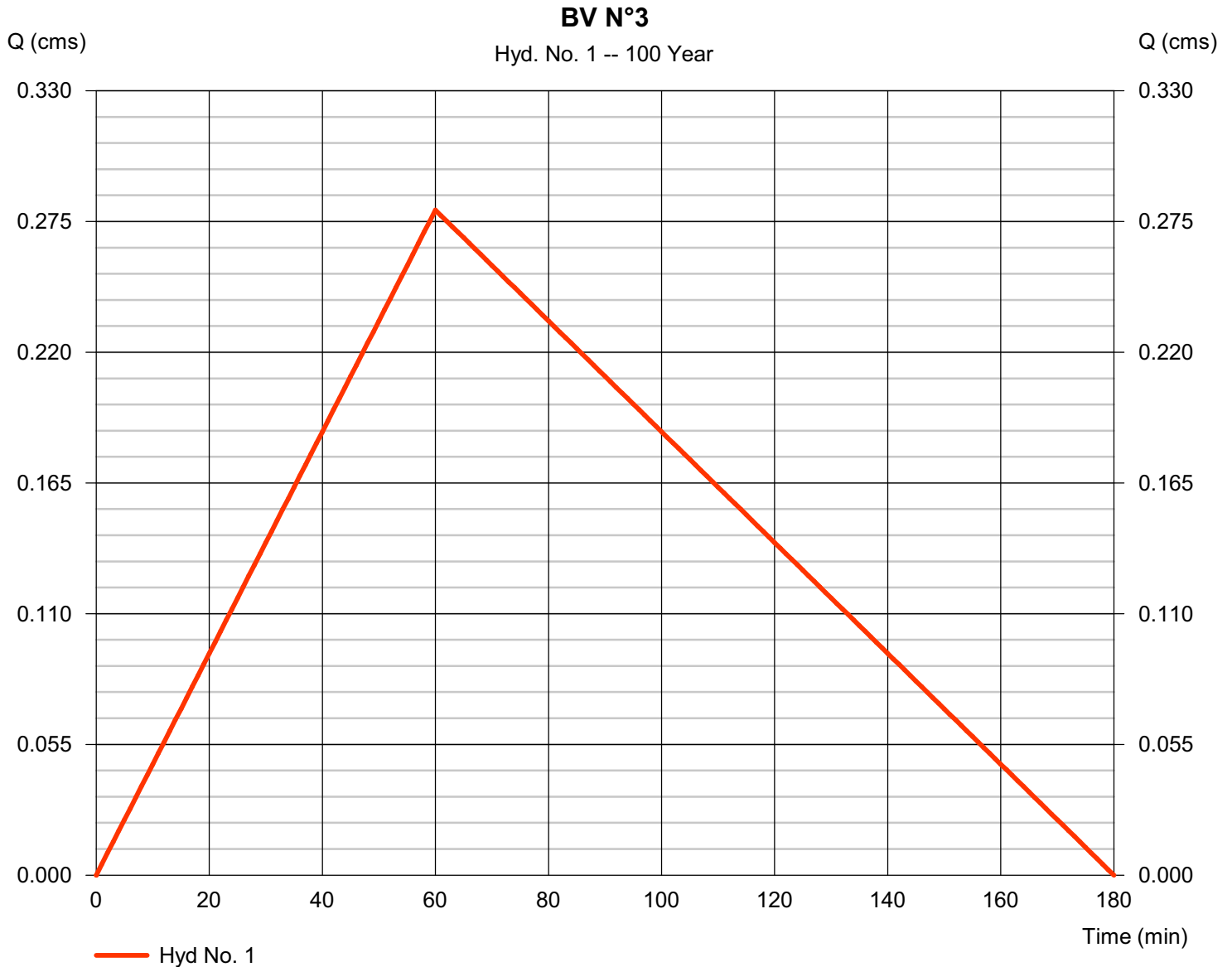
Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2010 by Autodesk, Inc. v9.25

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## Hyd. No. 1

BV N°3

Hydrograph type	= Rational	Peak discharge	= 0.280 cms
Storm frequency	= 100 yrs	Time to peak	= 60 min
Time interval	= 1 min	Hyd. volume	= 1 511.0 cum
Drainage area	= 13.400 hectare	Runoff coeff.	= 0.2
Intensity	= 37.900 mm/hr	Tc by User	= 60.00 min
IDF Curve	= IDF_ALSACE.IDF	Asc/Rec limb fact	= 1/2



# Watershed Model Schematic

Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2010 by Autodesk, Inc. v9.25

BV N°4



## Legend

<u>Hyd.</u>	<u>Origin</u>	<u>Description</u>
1	Rational	BV N°4

# Hydrograph Report

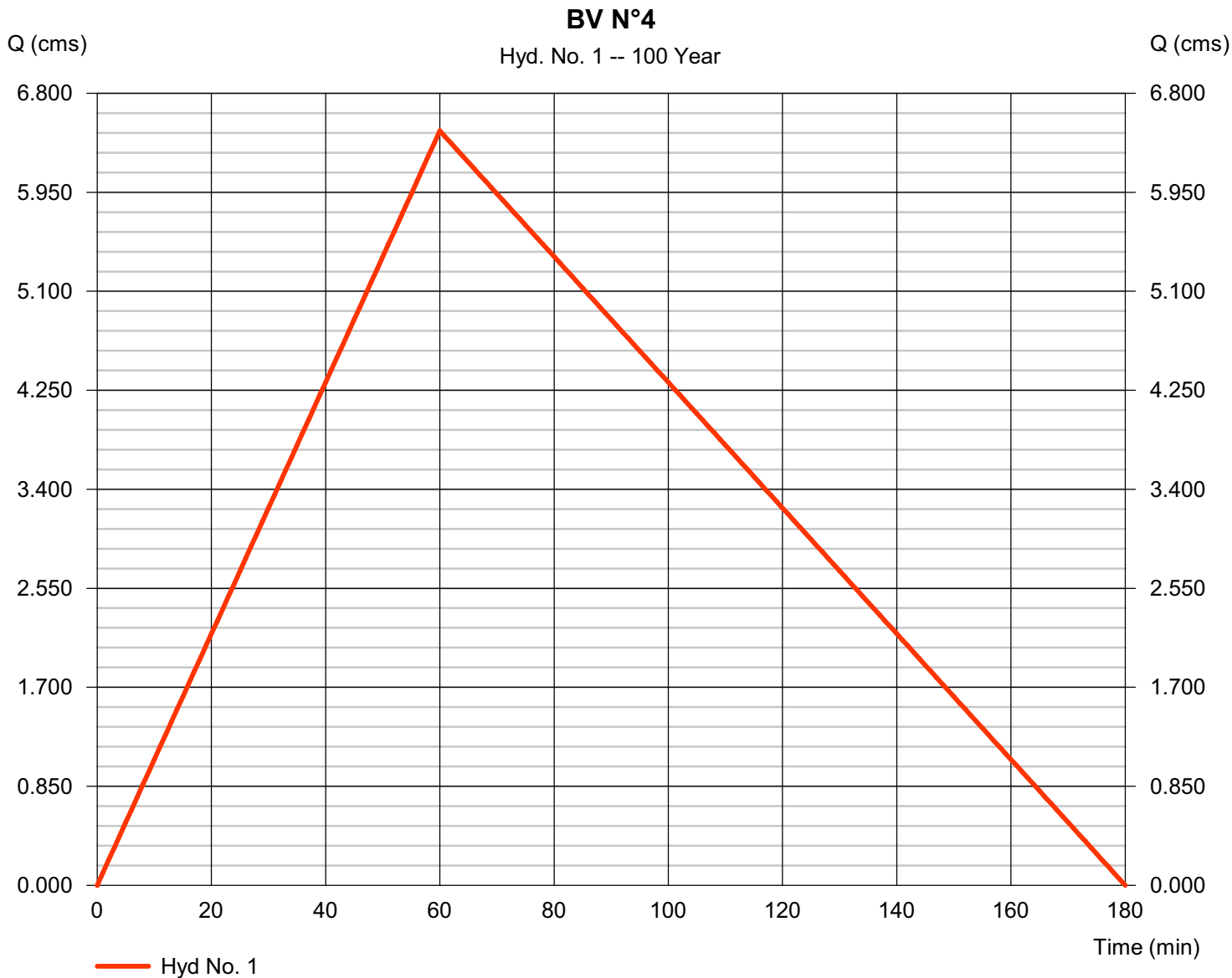
Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2010 by Autodesk, Inc. v9.25

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## Hyd. No. 1

BV N°4

Hydrograph type	= Rational	Peak discharge	= 6.477 cms
Storm frequency	= 100 yrs	Time to peak	= 60 min
Time interval	= 1 min	Hyd. volume	= 34 978.5 cum
Drainage area	= 282.000 hectare	Runoff coeff.	= 0.22
Intensity	= 37.900 mm/hr	Tc by User	= 60.00 min
IDF Curve	= IDF_ALSACE.IDF	Asc/Rec limb fact	= 1/2



# Watershed Model Schematic

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BV N°5



## **Legend**

<b><u>Hyd.</u></b>	<b><u>Origin</u></b>	<b><u>Description</u></b>
1	Rational	BV N°5

# Hydrograph Report

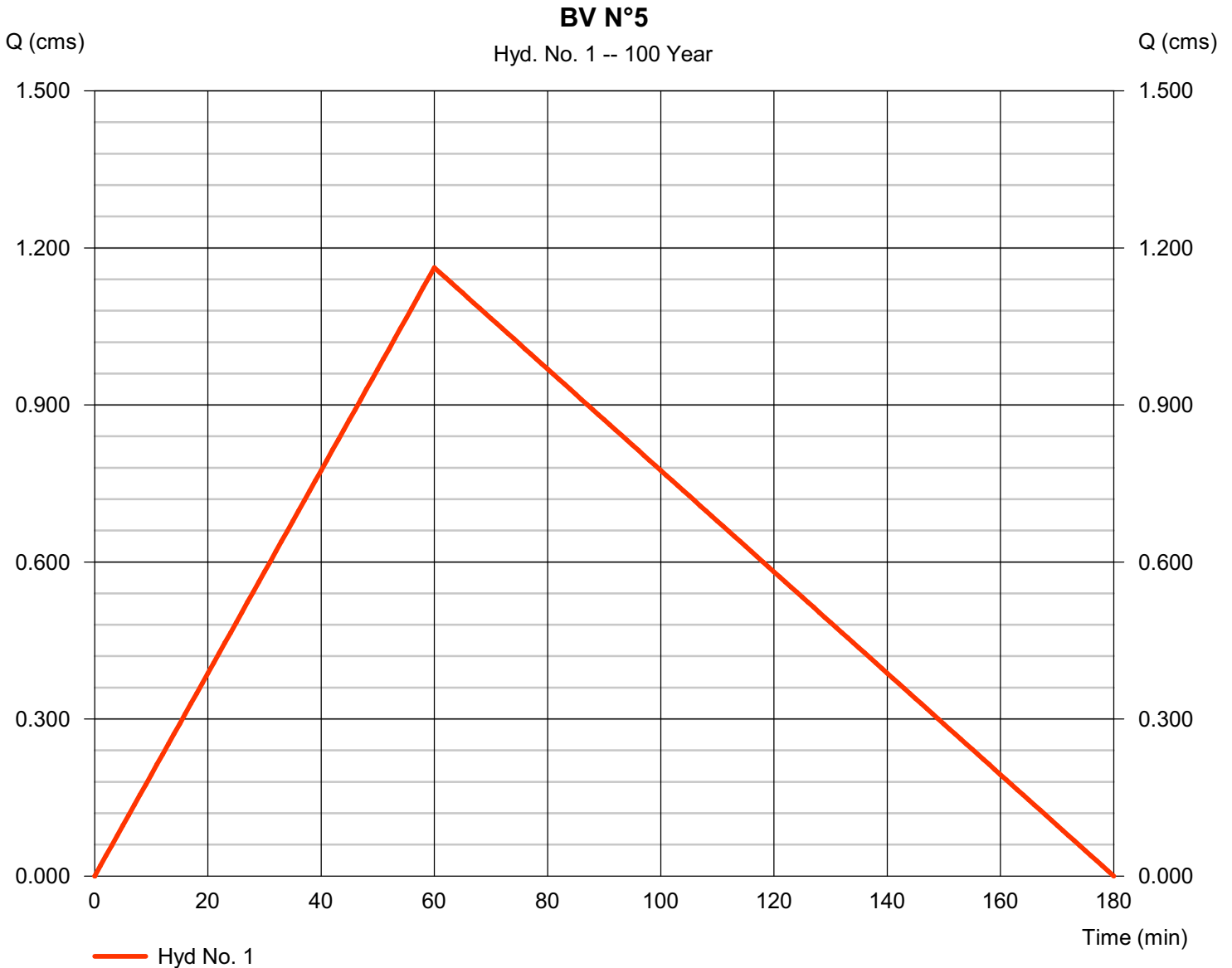
Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2010 by Autodesk, Inc. v9.25

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## Hyd. No. 1

BV N°5

Hydrograph type	= Rational	Peak discharge	= 1.162 cms
Storm frequency	= 100 yrs	Time to peak	= 60 min
Time interval	= 1 min	Hyd. volume	= 6 276.3 cum
Drainage area	= 50.600 hectare	Runoff coeff.	= 0.22
Intensity	= 37.900 mm/hr	Tc by User	= 60.00 min
IDF Curve	= IDF_ALSACE.IDF	Asc/Rec limb fact	= 1/2



# Watershed Model Schematic

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BV N°15



## **Legend**

<b><u>Hyd.</u></b>	<b><u>Origin</u></b>	<b><u>Description</u></b>
1	Rational	BV N°15

# Hydrograph Report

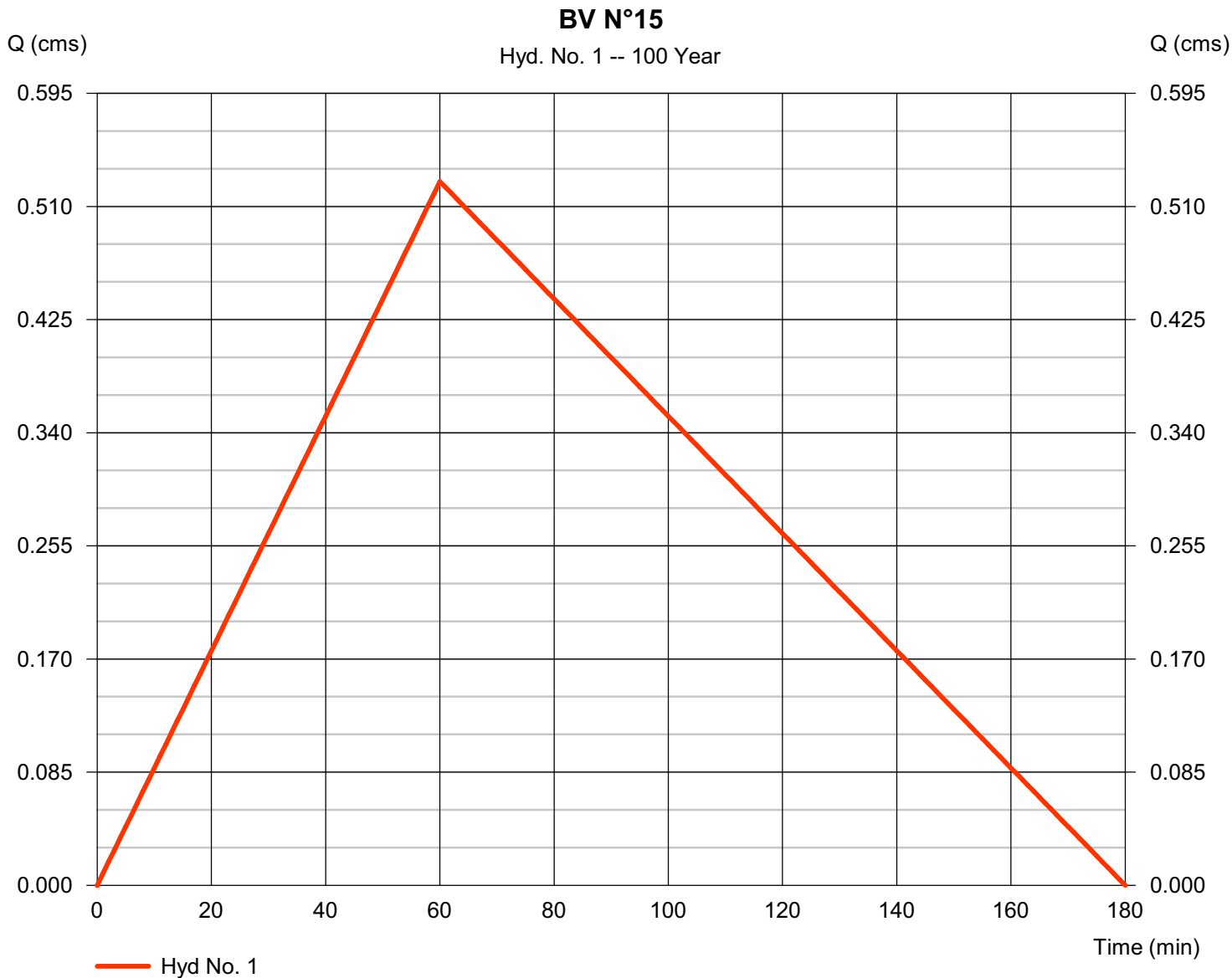
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## Hyd. No. 1

BV N°15

Hydrograph type	= Rational	Peak discharge	= 0.529 cms
Storm frequency	= 100 yrs	Time to peak	= 60 min
Time interval	= 1 min	Hyd. volume	= 2 855.1 cum
Drainage area	= 21.100 hectare	Runoff coeff.	= 0.24
Intensity	= 37.900 mm/hr	Tc by User	= 60.00 min
IDF Curve	= IDF_ALSACE.IDF	Asc/Rec limb fact	= 1/2





# Watershed Model Schematic

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BV N°18



## Legend

<u>Hyd.</u>	<u>Origin</u>	<u>Description</u>
1	Rational	BV N°18

# Hydrograph Report

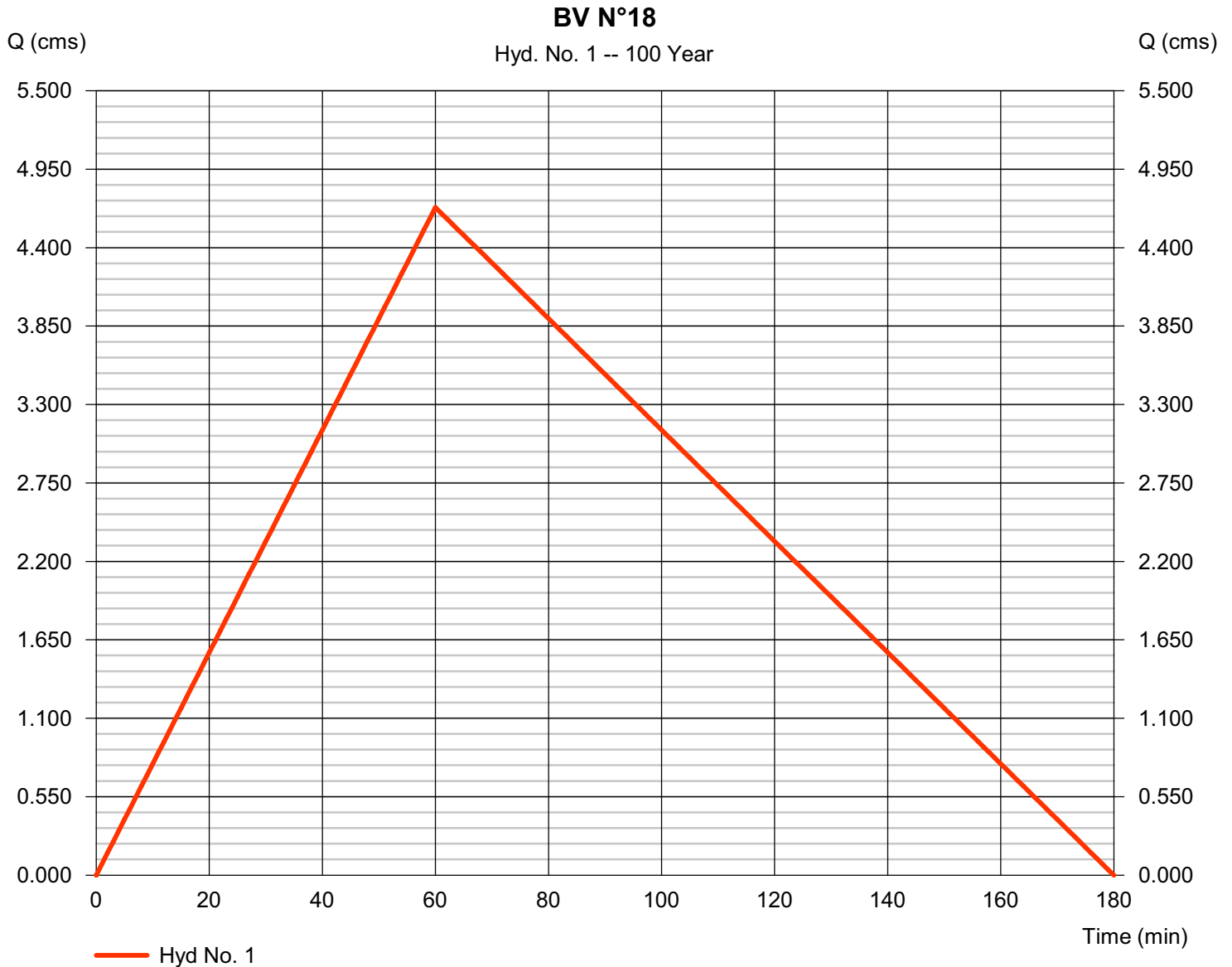
Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2010 by Autodesk, Inc. v9.25

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## Hyd. No. 1

BV N°18

Hydrograph type	= Rational	Peak discharge	= 4.683 cms
Storm frequency	= 100 yrs	Time to peak	= 60 min
Time interval	= 1 min	Hyd. volume	= 25 286.6 cum
Drainage area	= 195.000 hectare	Runoff coeff.	= 0.23
Intensity	= 37.900 mm/hr	Tc by User	= 60.00 min
IDF Curve	= IDF_ALSACE.IDF	Asc/Rec limb fact	= 1/2



# Watershed Model Schematic

Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2010 by Autodesk, Inc. v9.25

BV N°27



## **Legend**

<b><u>Hyd.</u></b>	<b><u>Origin</u></b>	<b><u>Description</u></b>
1	Rational	BV N°27

# Hydrograph Report

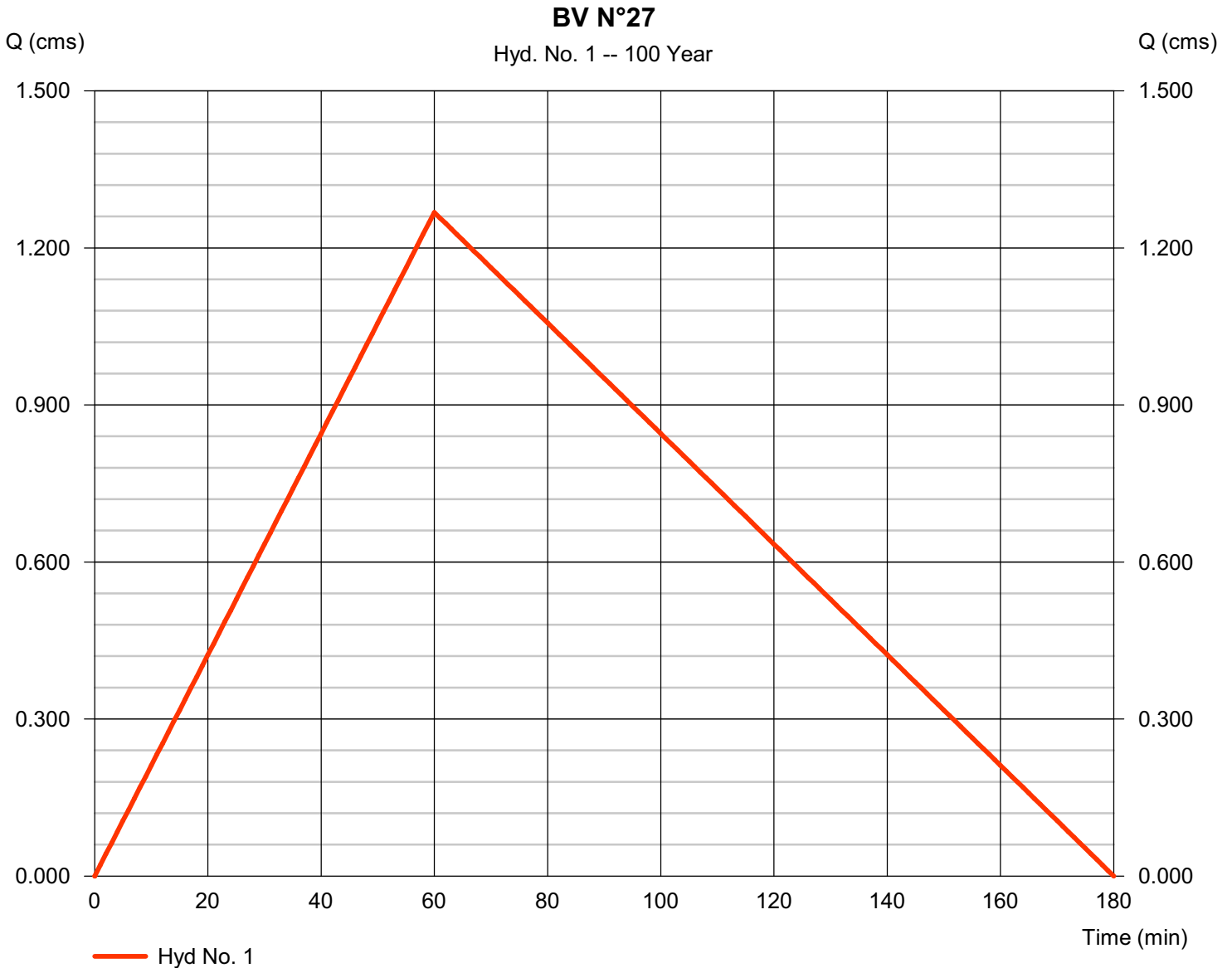
Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2010 by Autodesk, Inc. v9.25

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## Hyd. No. 1

BV N°27

Hydrograph type	= Rational	Peak discharge	= 1.268 cms
Storm frequency	= 100 yrs	Time to peak	= 60 min
Time interval	= 1 min	Hyd. volume	= 6 846.8 cum
Drainage area	= 52.800 hectare	Runoff coeff.	= 0.23
Intensity	= 37.900 mm/hr	Tc by User	= 60.00 min
IDF Curve	= IDF_ALSACE.IDF	Asc/Rec limb fact	= 1/2



# Watershed Model Schematic

Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2010 by Autodesk, Inc. v9.25

BV N°28



## **Legend**

<b><u>Hyd.</u></b>	<b><u>Origin</u></b>	<b><u>Description</u></b>
1	Rational	BV N°28

# Hydrograph Report

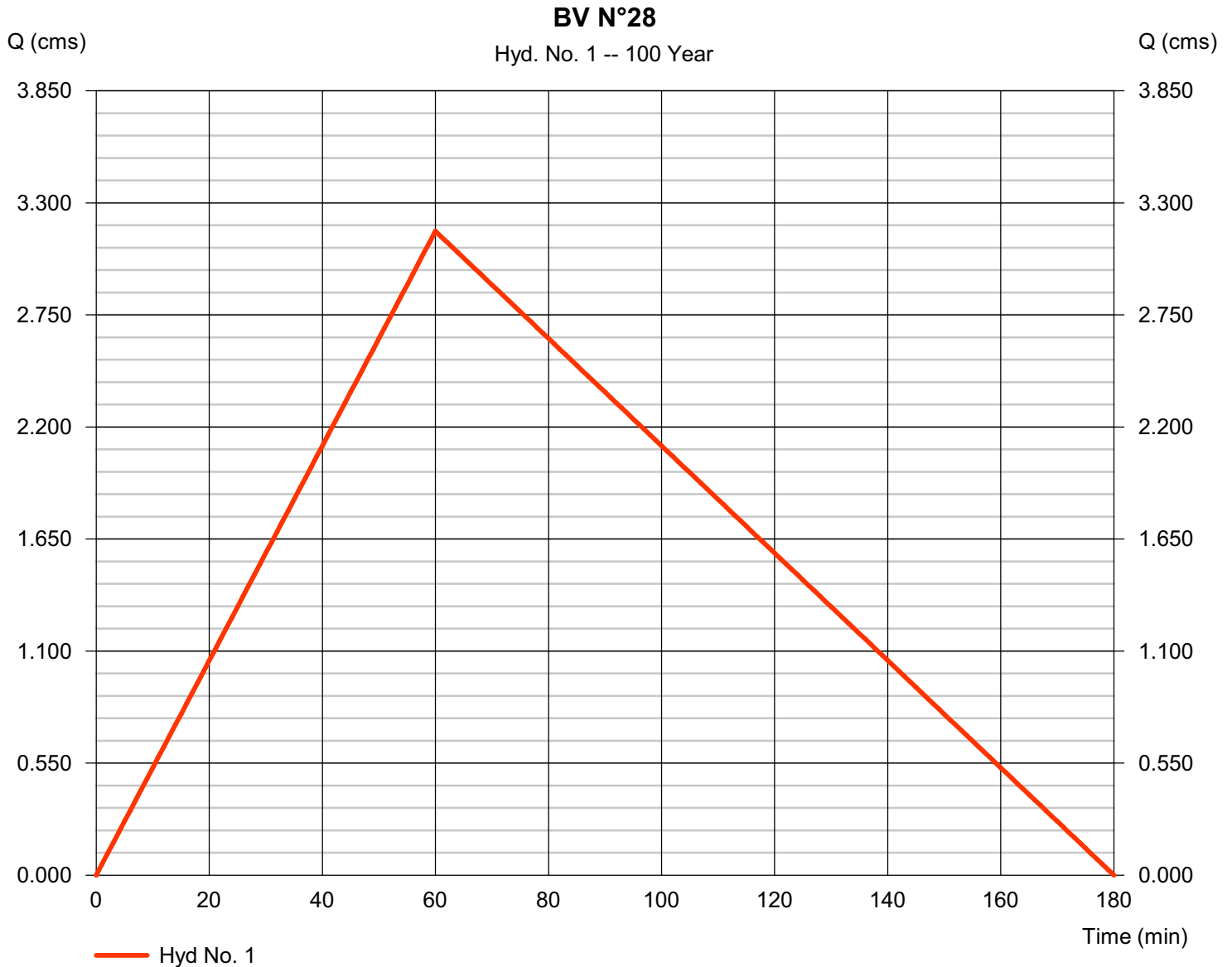
Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2010 by Autodesk, Inc. v9.25

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## Hyd. No. 1

BV N°28

Hydrograph type	= Rational	Peak discharge	= 3.161 cms
Storm frequency	= 100 yrs	Time to peak	= 60 min
Time interval	= 1 min	Hyd. volume	= 17 069.2 cum
Drainage area	= 121.100 hectare	Runoff coeff.	= 0.25
Intensity	= 37.900 mm/hr	Tc by User	= 60.00 min
IDF Curve	= IDF_ALSACE.IDF	Asc/Rec limb fact	= 1/2



# Watershed Model Schematic

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BV N°29



## **Legend**

<b><u>Hyd.</u></b>	<b><u>Origin</u></b>	<b><u>Description</u></b>
1	Rational	BV N°29

# Hydrograph Report

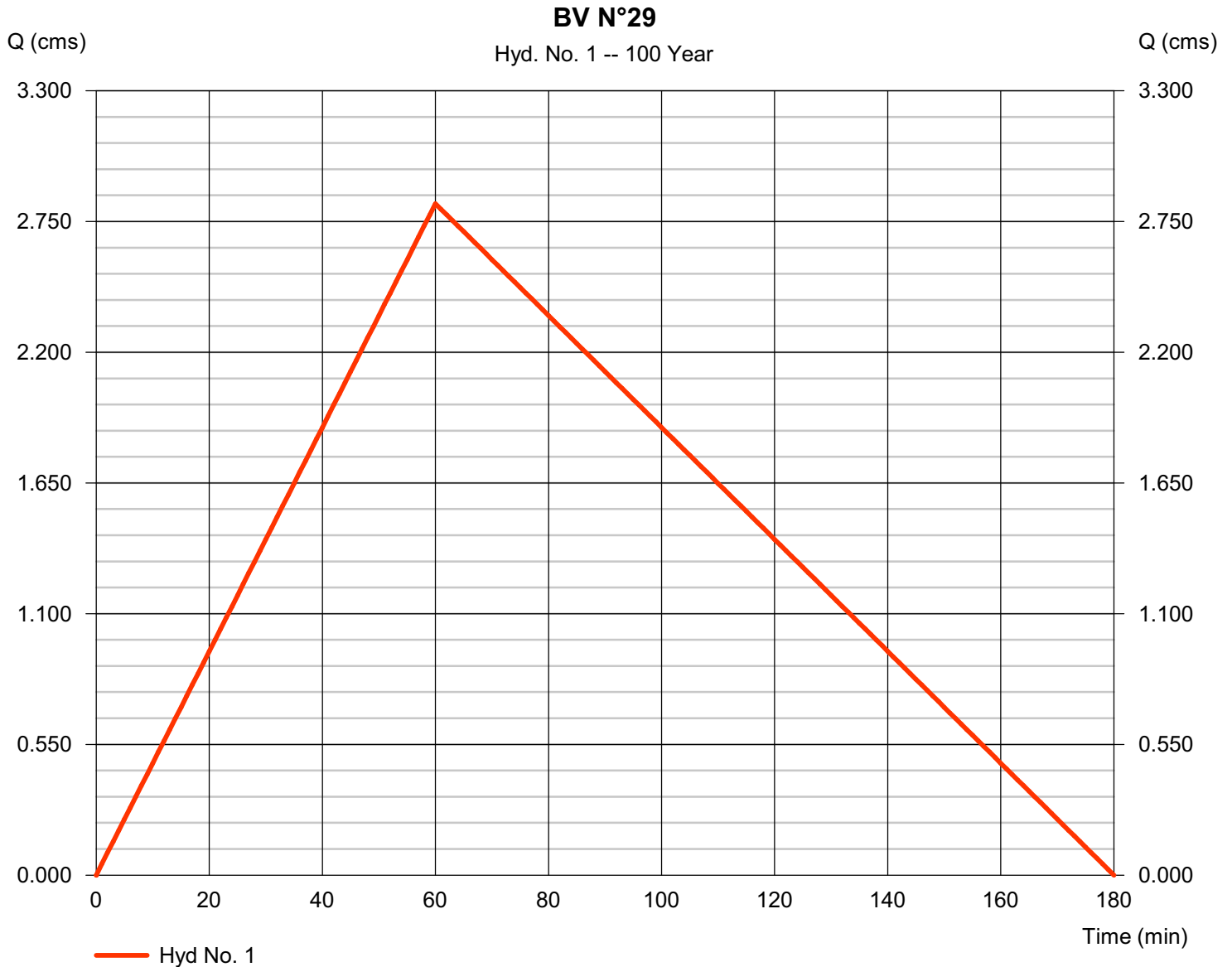
Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2010 by Autodesk, Inc. v9.25

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## Hyd. No. 1

BV N°29

Hydrograph type	= Rational	Peak discharge	= 2.825 cms
Storm frequency	= 100 yrs	Time to peak	= 60 min
Time interval	= 1 min	Hyd. volume	= 15 256.6 cum
Drainage area	= 225.500 hectare	Runoff coeff.	= 0.12
Intensity	= 37.900 mm/hr	Tc by User	= 60.00 min
IDF Curve	= IDF_ALSACE.IDF	Asc/Rec limb fact	= 1/2





# Watershed Model Schematic

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BV N°30



## Legend

<u>Hyd.</u>	<u>Origin</u>	<u>Description</u>
1	Rational	BV N°30

# Hydrograph Report

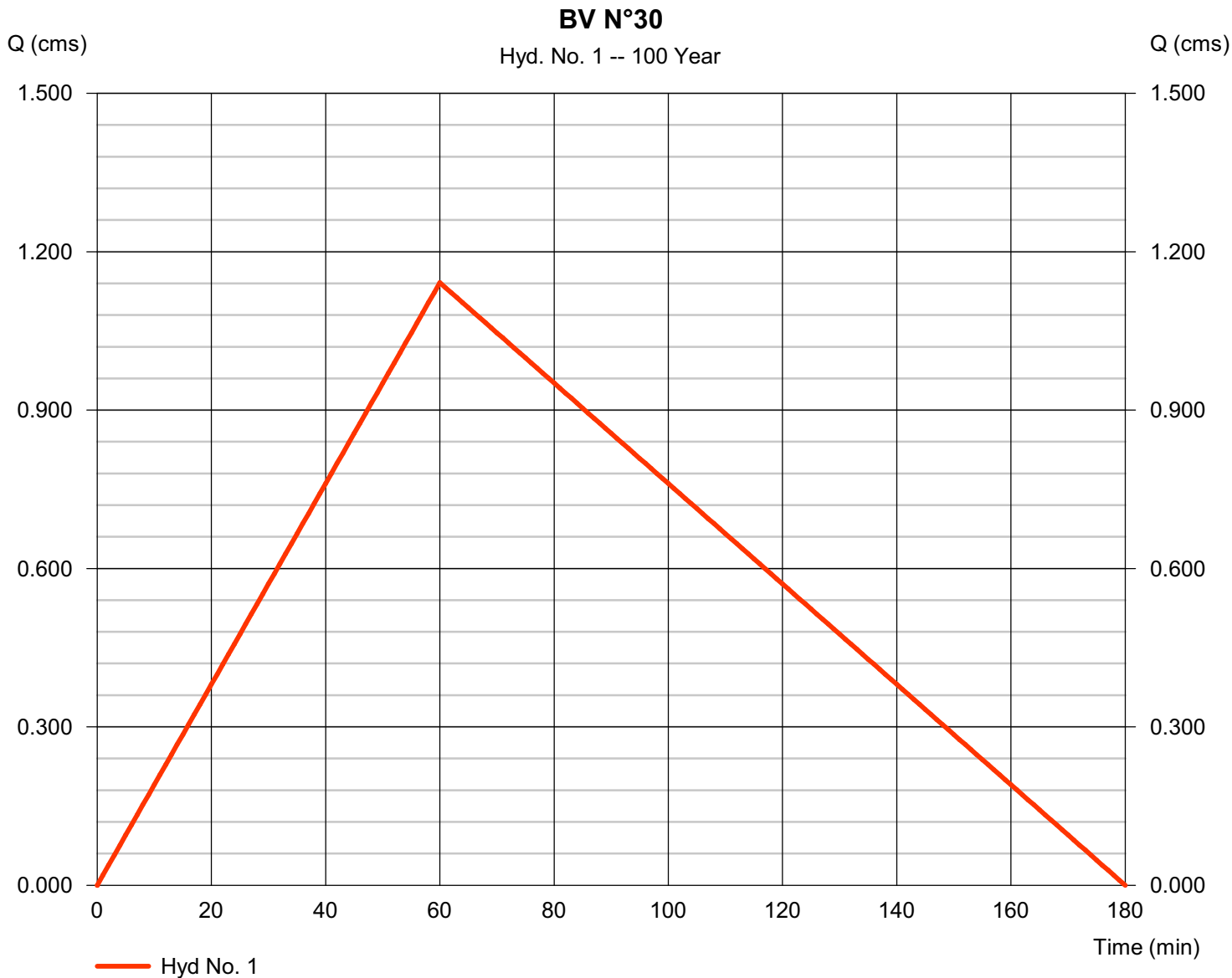
Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2010 by Autodesk, Inc. v9.25

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## Hyd. No. 1

BV N°30

Hydrograph type	= Rational	Peak discharge	= 1.141 cms
Storm frequency	= 100 yrs	Time to peak	= 60 min
Time interval	= 1 min	Hyd. volume	= 6 163.5 cum
Drainage area	= 182.200 hectare	Runoff coeff.	= 0.06
Intensity	= 37.900 mm/hr	Tc by User	= 60.00 min
IDF Curve	= IDF_ALSACE.IDF	Asc/Rec limb fact	= 1/2



# Watershed Model Schematic

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BV N°31



## **Legend**

<b><u>Hyd.</u></b>	<b><u>Origin</u></b>	<b><u>Description</u></b>
1	Rational	BV N°31

# Hydrograph Report

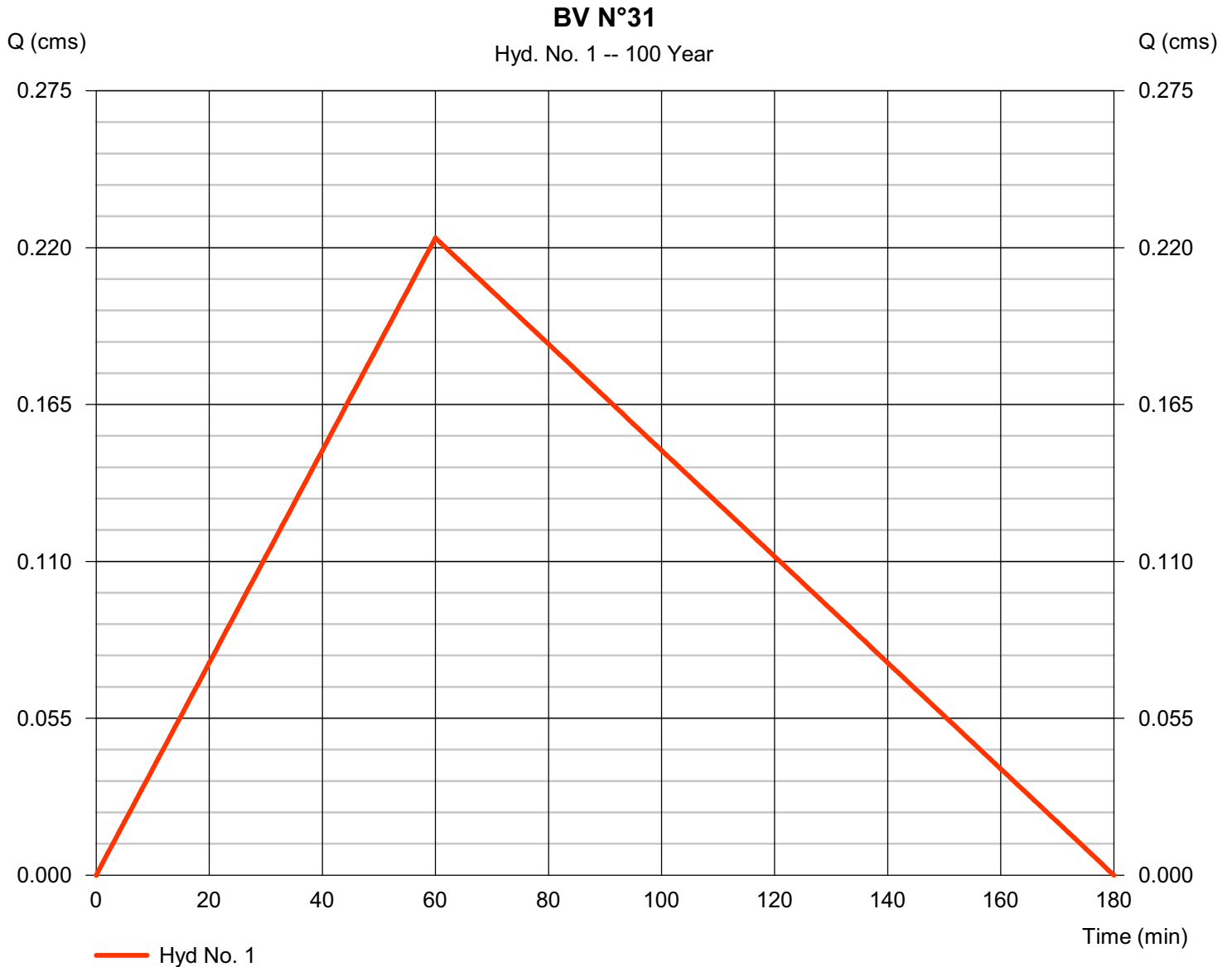
Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2010 by Autodesk, Inc. v9.25

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## Hyd. No. 1

BV N°31

Hydrograph type	= Rational	Peak discharge	= 0.223 cms
Storm frequency	= 100 yrs	Time to peak	= 60 min
Time interval	= 1 min	Hyd. volume	= 1 206.5 cum
Drainage area	= 107.000 hectare	Runoff coeff.	= 0.02
Intensity	= 37.900 mm/hr	Tc by User	= 60.00 min
IDF Curve	= IDF_ALSACE.IDF	Asc/Rec limb fact	= 1/2



# Watershed Model Schematic

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BV N°34



## **Legend**

<b><u>Hyd.</u></b>	<b><u>Origin</u></b>	<b><u>Description</u></b>
1	Rational	BV N°34

# Hydrograph Report

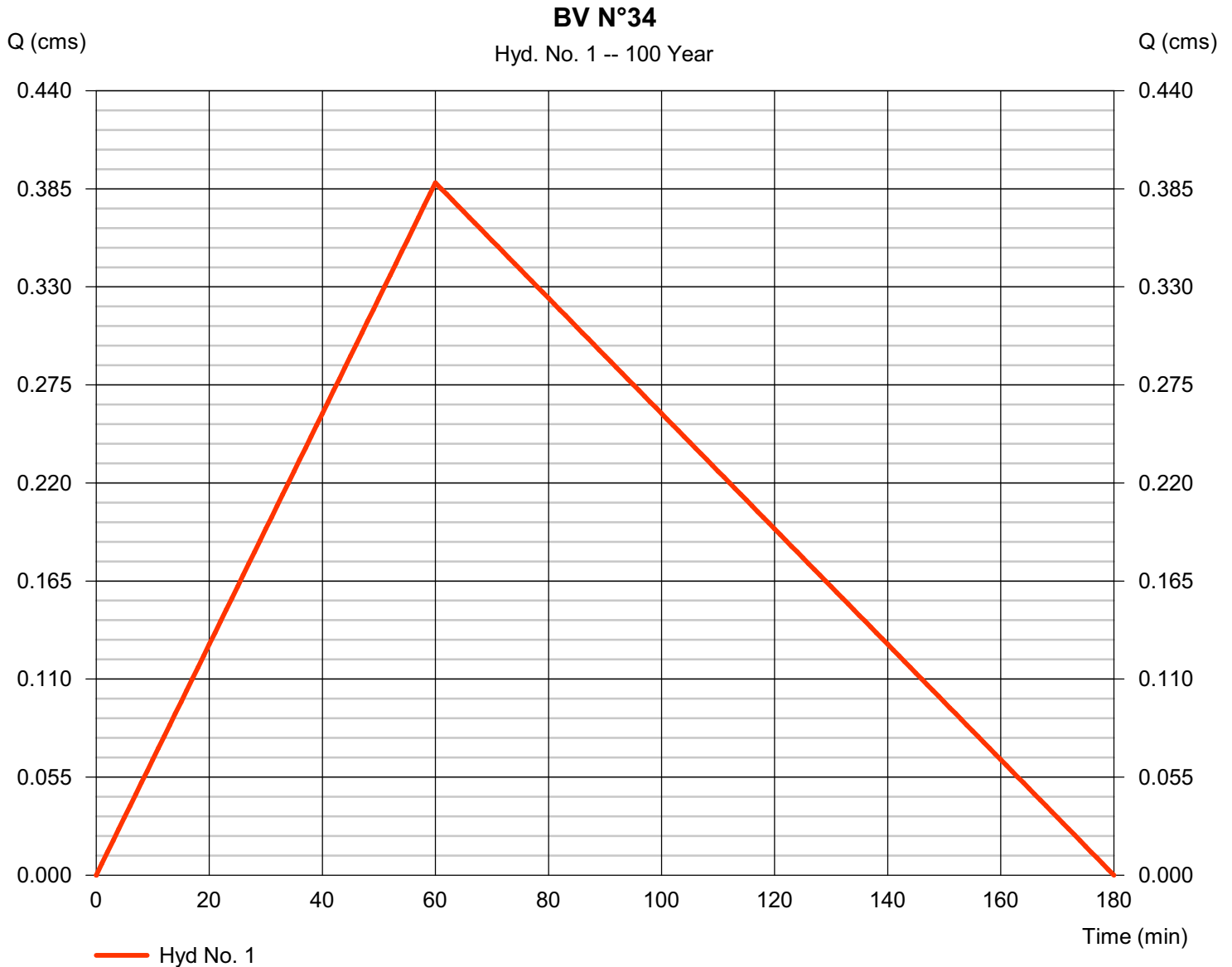
Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2010 by Autodesk, Inc. v9.25

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## Hyd. No. 1

BV N°34

Hydrograph type	= Rational	Peak discharge	= 0.388 cms
Storm frequency	= 100 yrs	Time to peak	= 60 min
Time interval	= 1 min	Hyd. volume	= 2 097.4 cum
Drainage area	= 37.200 hectare	Runoff coeff.	= 0.1
Intensity	= 37.900 mm/hr	Tc by User	= 60.00 min
IDF Curve	= IDF_ALSACE.IDF	Asc/Rec limb fact	= 1/2



# Watershed Model Schematic

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BV N°35



## **Legend**

<b><u>Hyd.</u></b>	<b><u>Origin</u></b>	<b><u>Description</u></b>
1	Rational	BV N°35

# Hydrograph Report

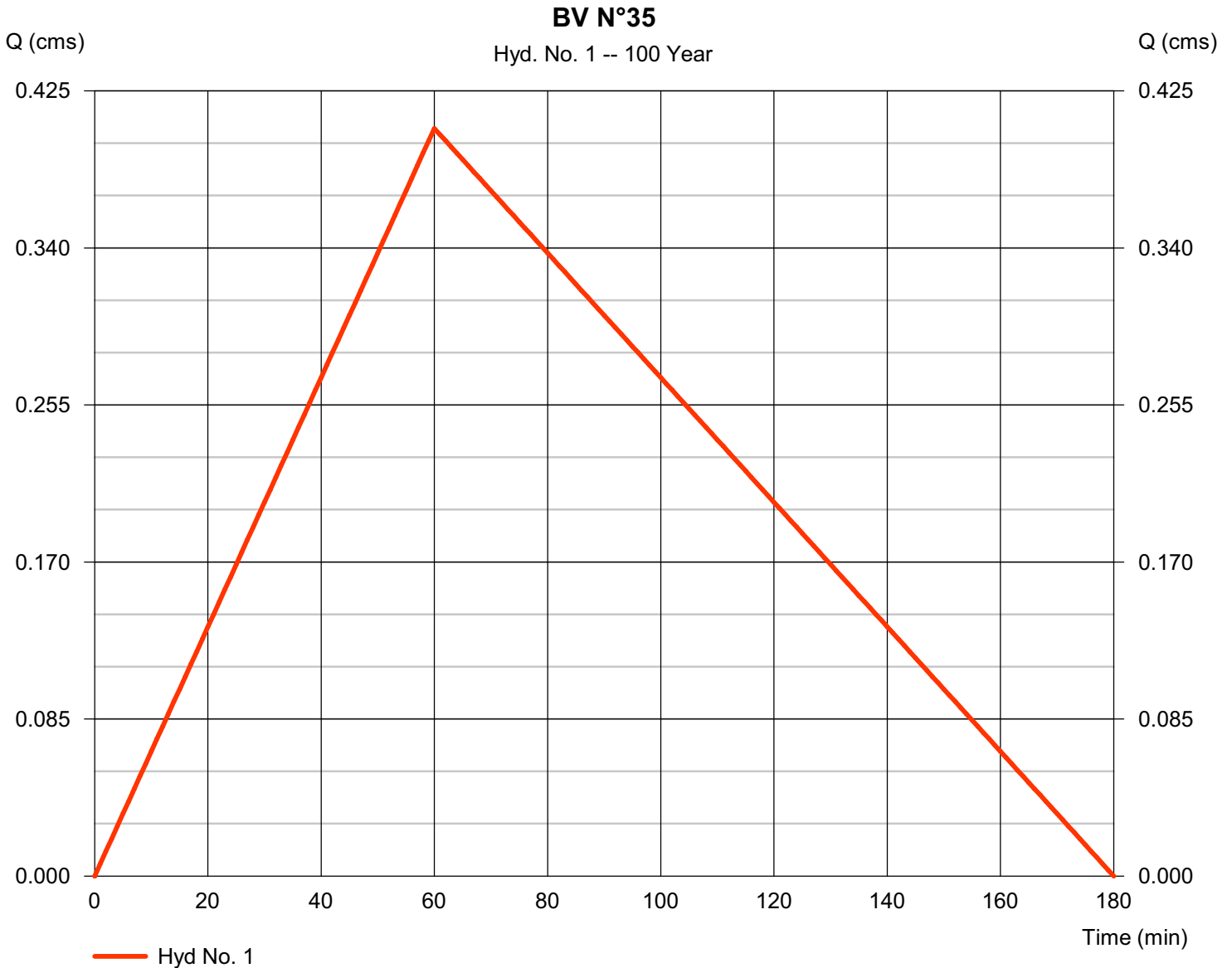
Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2010 by Autodesk, Inc. v9.25

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## Hyd. No. 1

BV N°35

Hydrograph type	= Rational	Peak discharge	= 0.405 cms
Storm frequency	= 100 yrs	Time to peak	= 60 min
Time interval	= 1 min	Hyd. volume	= 2 185.3 cum
Drainage area	= 20.400 hectare	Runoff coeff.	= 0.19
Intensity	= 37.900 mm/hr	Tc by User	= 60.00 min
IDF Curve	= IDF_ALSACE.IDF	Asc/Rec limb fact	= 1/2





# Watershed Model Schematic

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BV N°36



## **Legend**

<b><u>Hyd.</u></b>	<b><u>Origin</u></b>	<b><u>Description</u></b>
1	Rational	BV N°36

# Hydrograph Report

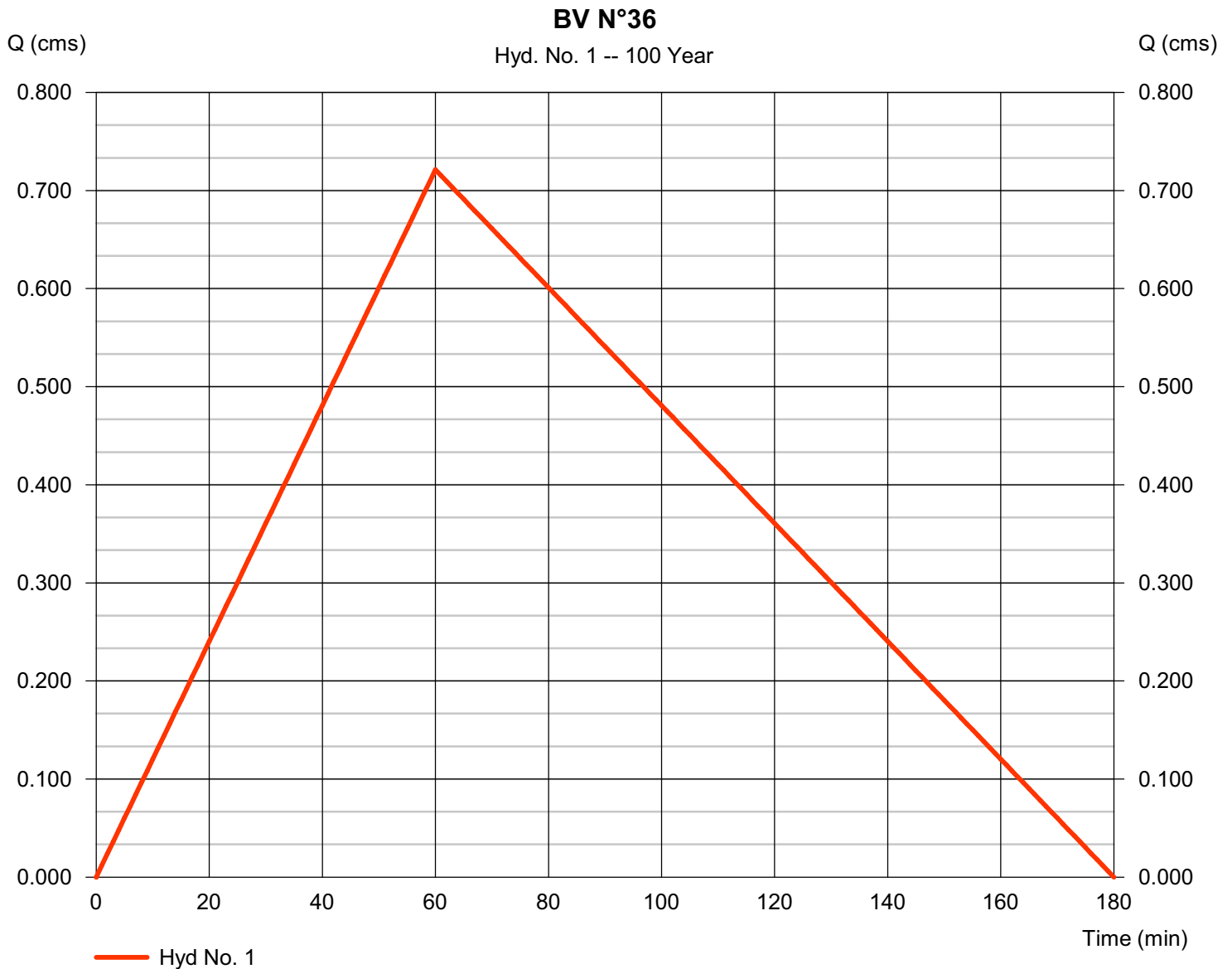
Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2010 by Autodesk, Inc. v9.25

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## Hyd. No. 1

BV N°36

Hydrograph type	= Rational	Peak discharge	= 0.721 cms
Storm frequency	= 100 yrs	Time to peak	= 60 min
Time interval	= 1 min	Hyd. volume	= 3 894.8 cum
Drainage area	= 62.800 hectare	Runoff coeff.	= 0.11
Intensity	= 37.900 mm/hr	Tc by User	= 60.00 min
IDF Curve	= IDF_ALSACE.IDF	Asc/Rec limb fact	= 1/2



# Watershed Model Schematic

Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2010 by Autodesk, Inc. v9.25

BV N°37



## **Legend**

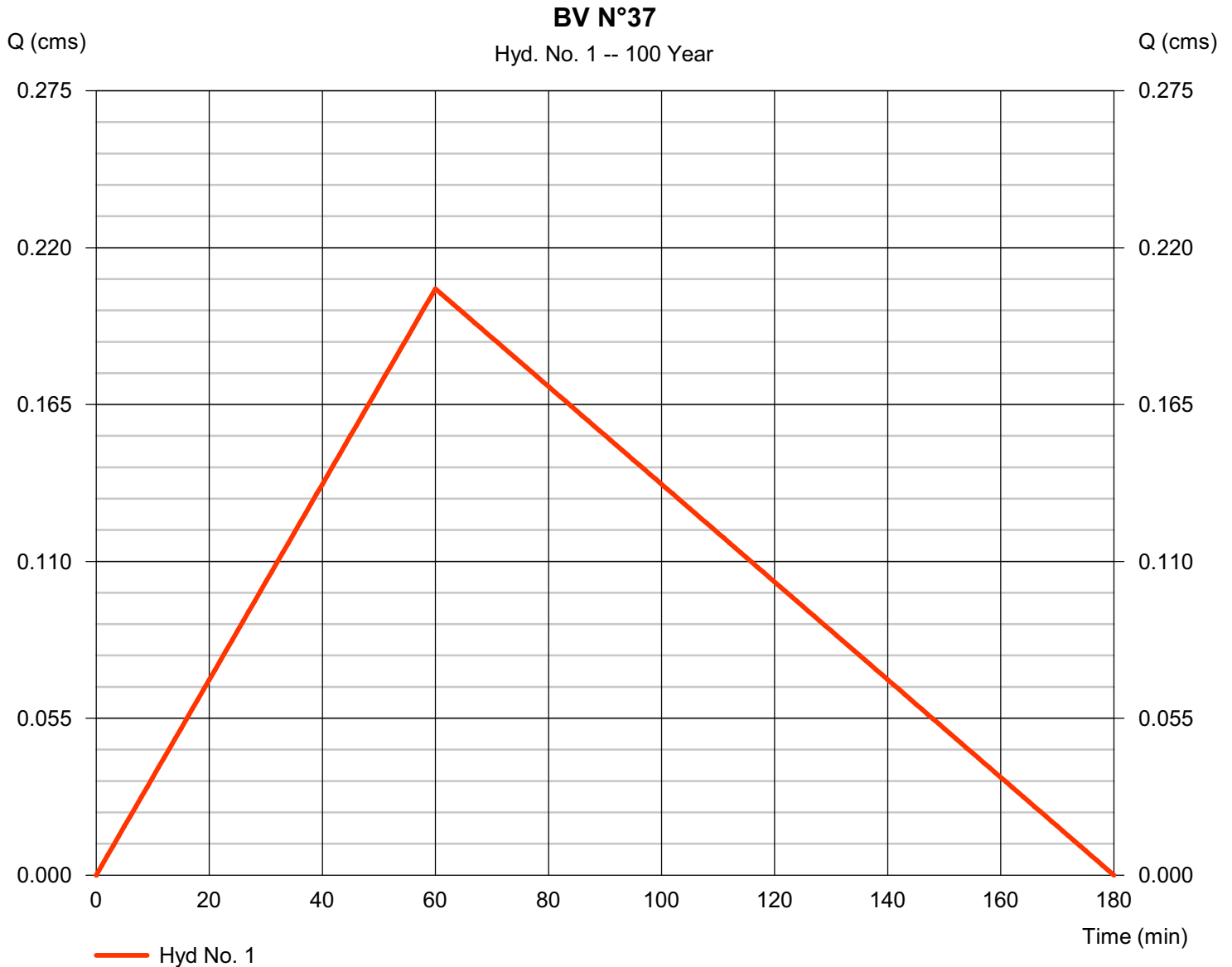
<b><u>Hyd.</u></b>	<b><u>Origin</u></b>	<b><u>Description</u></b>
1	Rational	BV N°37

# Hydrograph Report

## Hyd. No. 1

BV N°37

Hydrograph type	= Rational	Peak discharge	= 0.206 cms
Storm frequency	= 100 yrs	Time to peak	= 60 min
Time interval	= 1 min	Hyd. volume	= 1 110.1 cum
Drainage area	= 17.900 hectare	Runoff coeff.	= 0.11
Intensity	= 37.900 mm/hr	Tc by User	= 60.00 min
IDF Curve	= IDF_ALSACE.IDF	Asc/Rec limb fact	= 1/2



# Watershed Model Schematic

Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2010 by Autodesk, Inc. v9.25

BV N°38



## **Legend**

<b><u>Hyd.</u></b>	<b><u>Origin</u></b>	<b><u>Description</u></b>
1	Rational	BV N°38

# Hydrograph Report

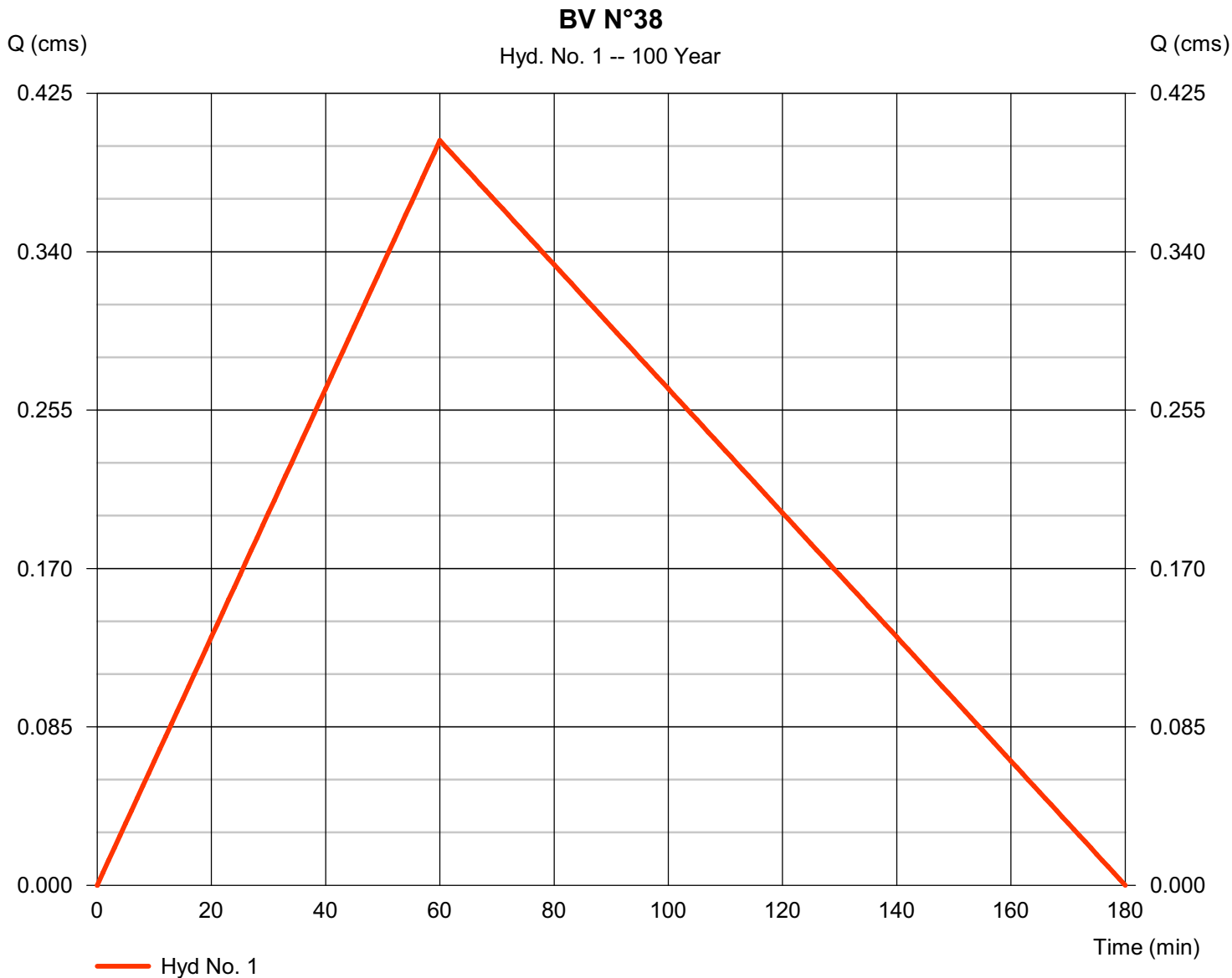
Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2010 by Autodesk, Inc. v9.25

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## Hyd. No. 1

BV N°38

Hydrograph type	= Rational	Peak discharge	= 0.400 cms
Storm frequency	= 100 yrs	Time to peak	= 60 min
Time interval	= 1 min	Hyd. volume	= 2 158.2 cum
Drainage area	= 17.400 hectare	Runoff coeff.	= 0.22
Intensity	= 37.900 mm/hr	Tc by User	= 60.00 min
IDF Curve	= IDF_ALSACE.IDF	Asc/Rec limb fact	= 1/2



# Watershed Model Schematic

Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2010 by Autodesk, Inc. v9.25

BV N°39



## **Legend**

<b><u>Hyd.</u></b>	<b><u>Origin</u></b>	<b><u>Description</u></b>
1	Rational	BV N°39

# Hydrograph Report

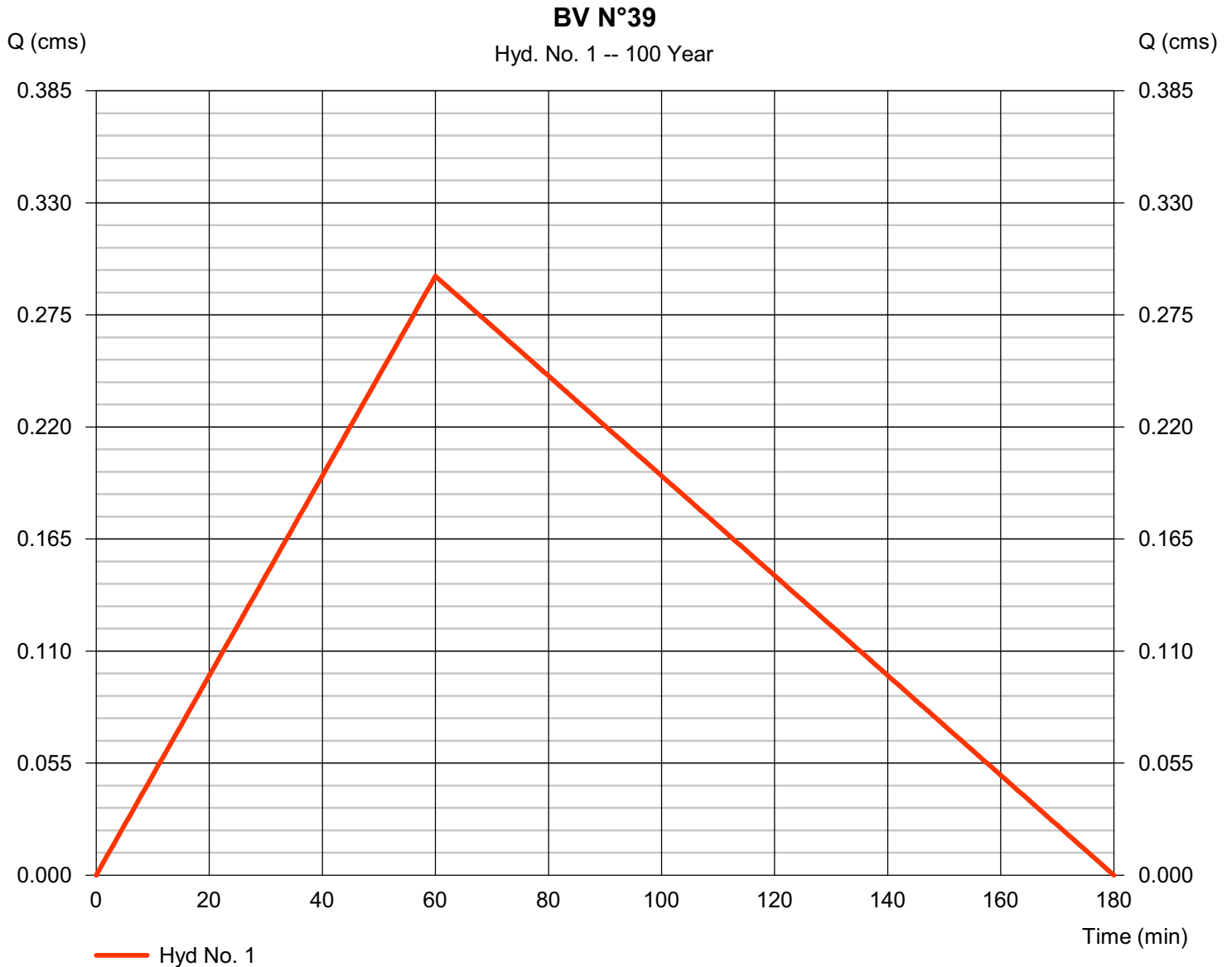
Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2010 by Autodesk, Inc. v9.25

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## Hyd. No. 1

BV N°39

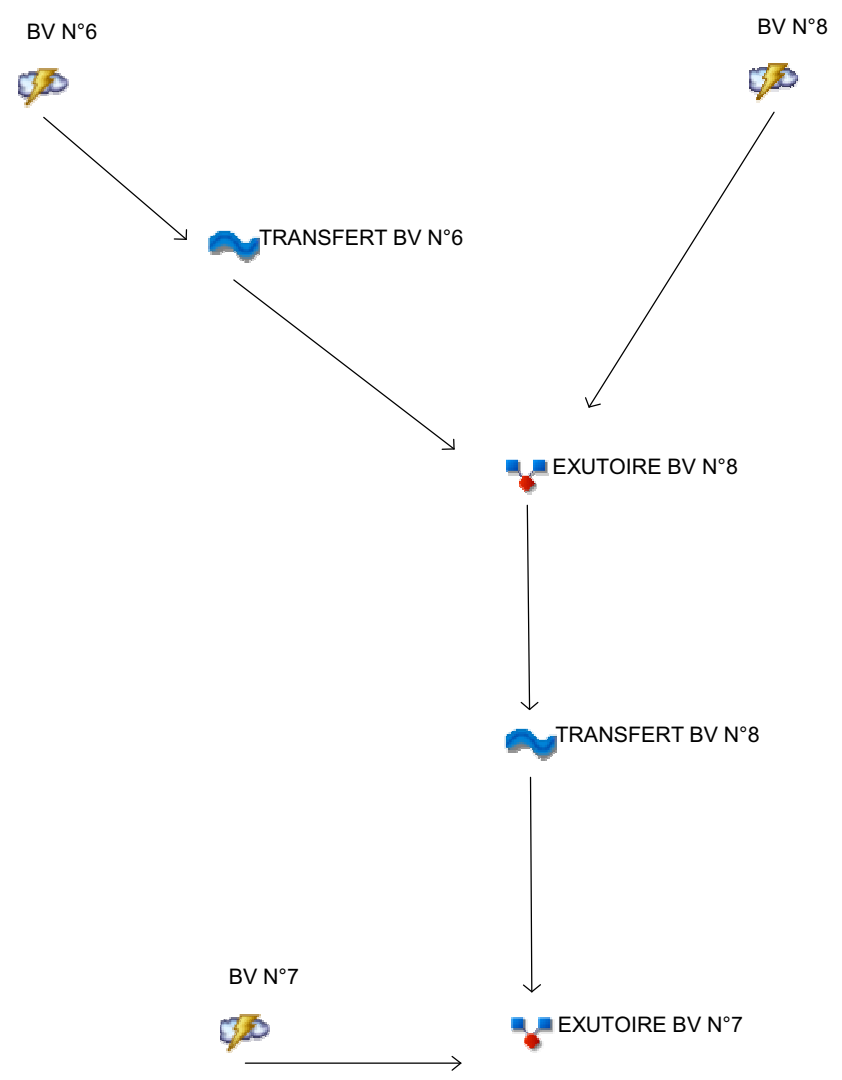
Hydrograph type	= Rational	Peak discharge	= 0.294 cms
Storm frequency	= 100 yrs	Time to peak	= 60 min
Time interval	= 1 min	Hyd. volume	= 1 587.7 cum
Drainage area	= 12.800 hectare	Runoff coeff.	= 0.22
Intensity	= 37.900 mm/hr	Tc by User	= 60.00 min
IDF Curve	= IDF_ALSACE.IDF	Asc/Rec limb fact	= 1/2





# Watershed Model Schematic

Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2010 by Autodesk, Inc. v9.25



## Legend

Hyd. Origin	Description
1	Rational BV N°6
2	Rational BV N°7
3	Reach TRANSFERT BV N°6
4	Rational BV N°8
5	Combine EXUTOIRE BV N°8
6	Reach TRANSFERT BV N°8
7	Combine EXUTOIRE BV N°7

# Hydrograph Report

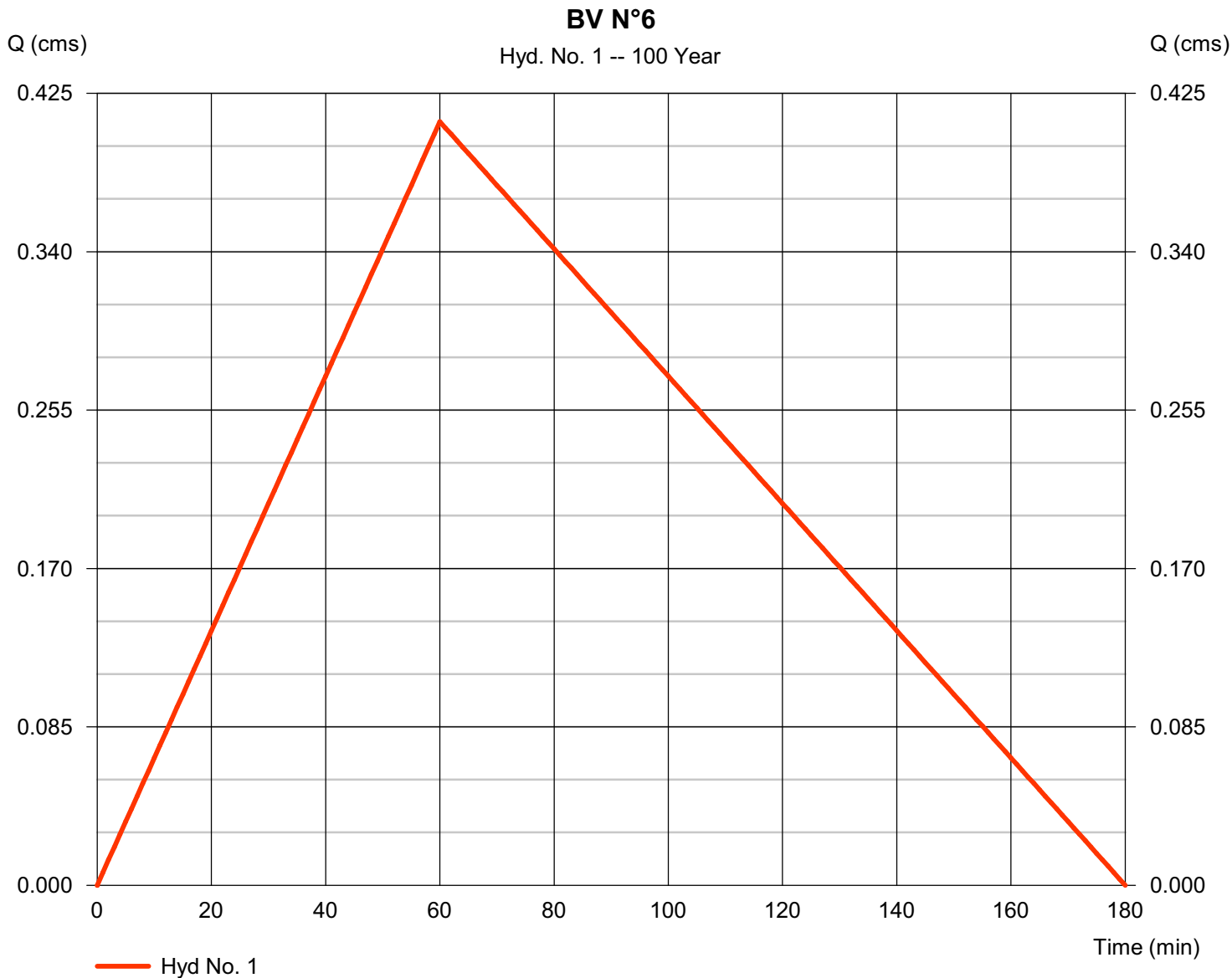
Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2010 by Autodesk, Inc. v9.25

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## Hyd. No. 1

BV N°6

Hydrograph type	= Rational	Peak discharge	= 0.410 cms
Storm frequency	= 100 yrs	Time to peak	= 60 min
Time interval	= 1 min	Hyd. volume	= 2 212.9 cum
Drainage area	= 15.700 hectare	Runoff coeff.	= 0.25
Intensity	= 37.900 mm/hr	Tc by User	= 60.00 min
IDF Curve	= IDF_ALSACE.IDF	Asc/Rec limb fact	= 1/2



# Hydrograph Report

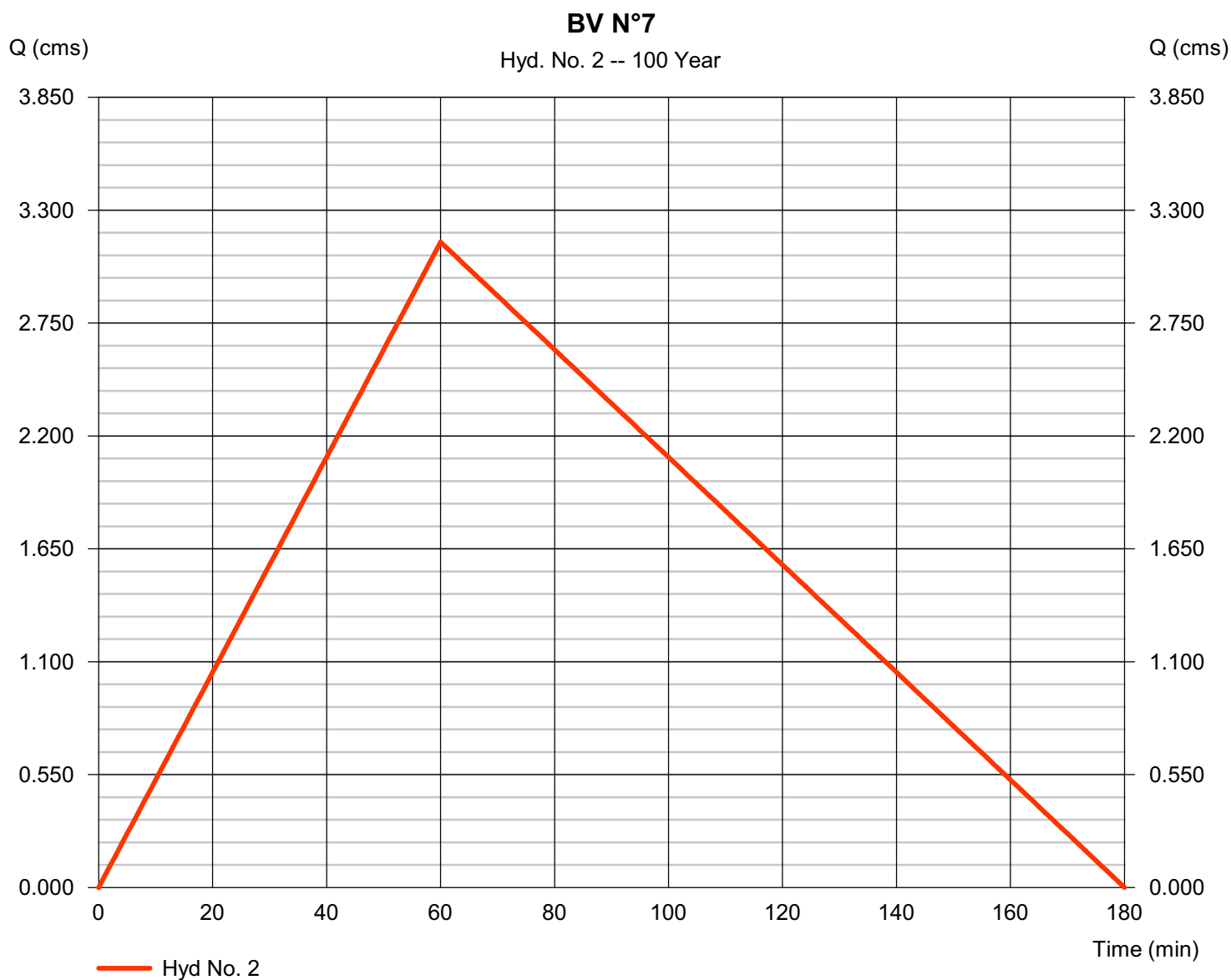
Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2010 by Autodesk, Inc. v9.25

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## Hyd. No. 2

BV N°7

Hydrograph type	= Rational	Peak discharge	= 3.145 cms
Storm frequency	= 100 yrs	Time to peak	= 60 min
Time interval	= 1 min	Hyd. volume	= 16 980.7 cum
Drainage area	= 136.900 hectare	Runoff coeff.	= 0.22
Intensity	= 37.900 mm/hr	Tc by User	= 60.00 min
IDF Curve	= IDF_ALSACE.IDF	Asc/Rec limb fact	= 1/2



# Hydrograph Report

Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2010 by Autodesk, Inc. v9.25

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## Hyd. No. 3

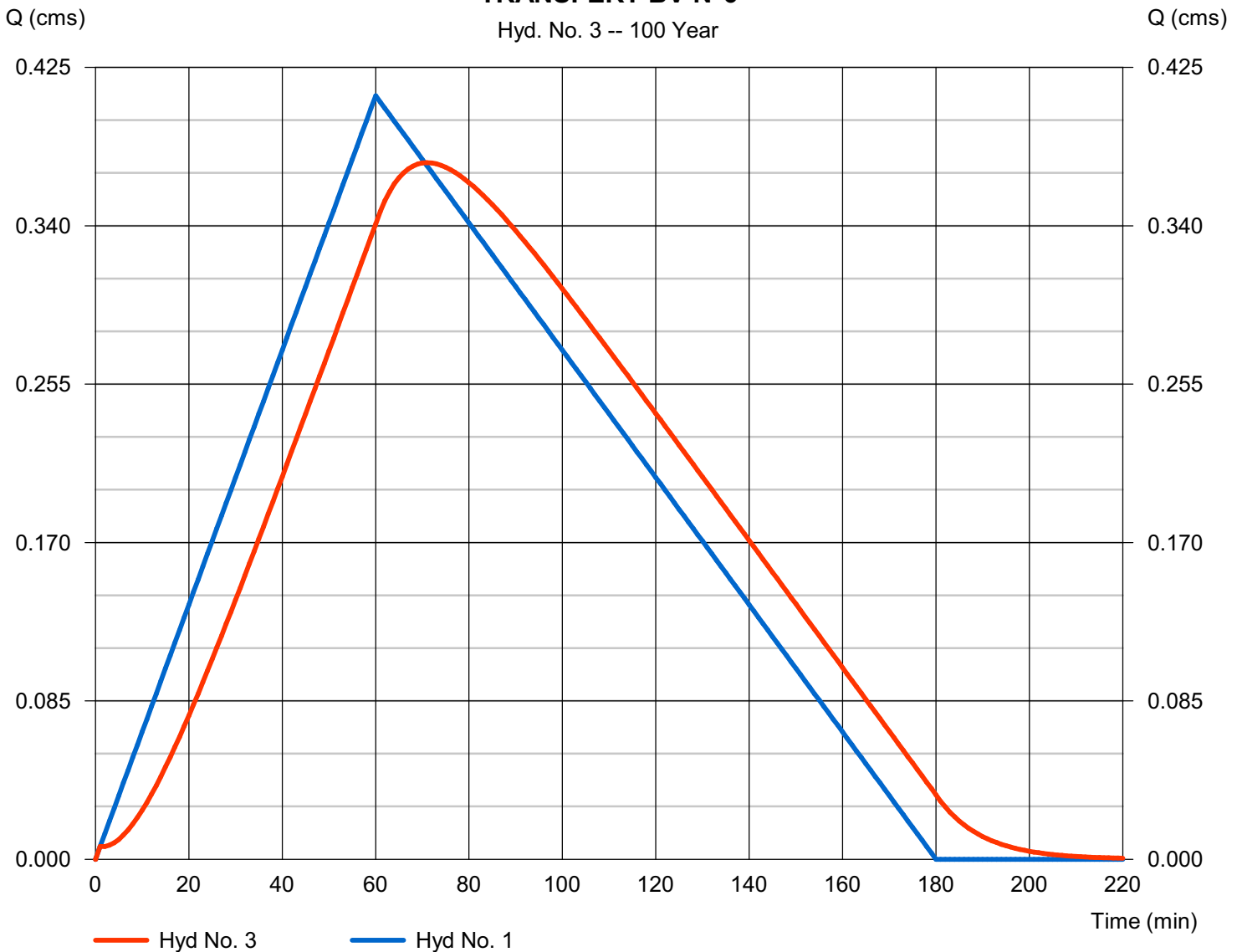
### TRANSFERT BV N°6

Hydrograph type	= Reach	Peak discharge	= 0.374 cms
Storm frequency	= 100 yrs	Time to peak	= 71 min
Time interval	= 1 min	Hyd. volume	= 2 216.9 cum
Inflow hyd. No.	= 1 - BV N°6	Section type	= Rectangular
Reach length	= 1278.0 m	Channel slope	= 3.7 %
Manning's n	= 0.025	Bottom width	= 2.0 m
Side slope	= 0.0:1	Max. depth	= 4.0 m
Rating curve x	= 3.269	Rating curve m	= 1.426
Ave. velocity	= 1.55 m/s	Routing coeff.	= 0.0989

Modified Att-Kin routing method used.

### TRANSFERT BV N°6

Hyd. No. 3 -- 100 Year



# Hydrograph Report

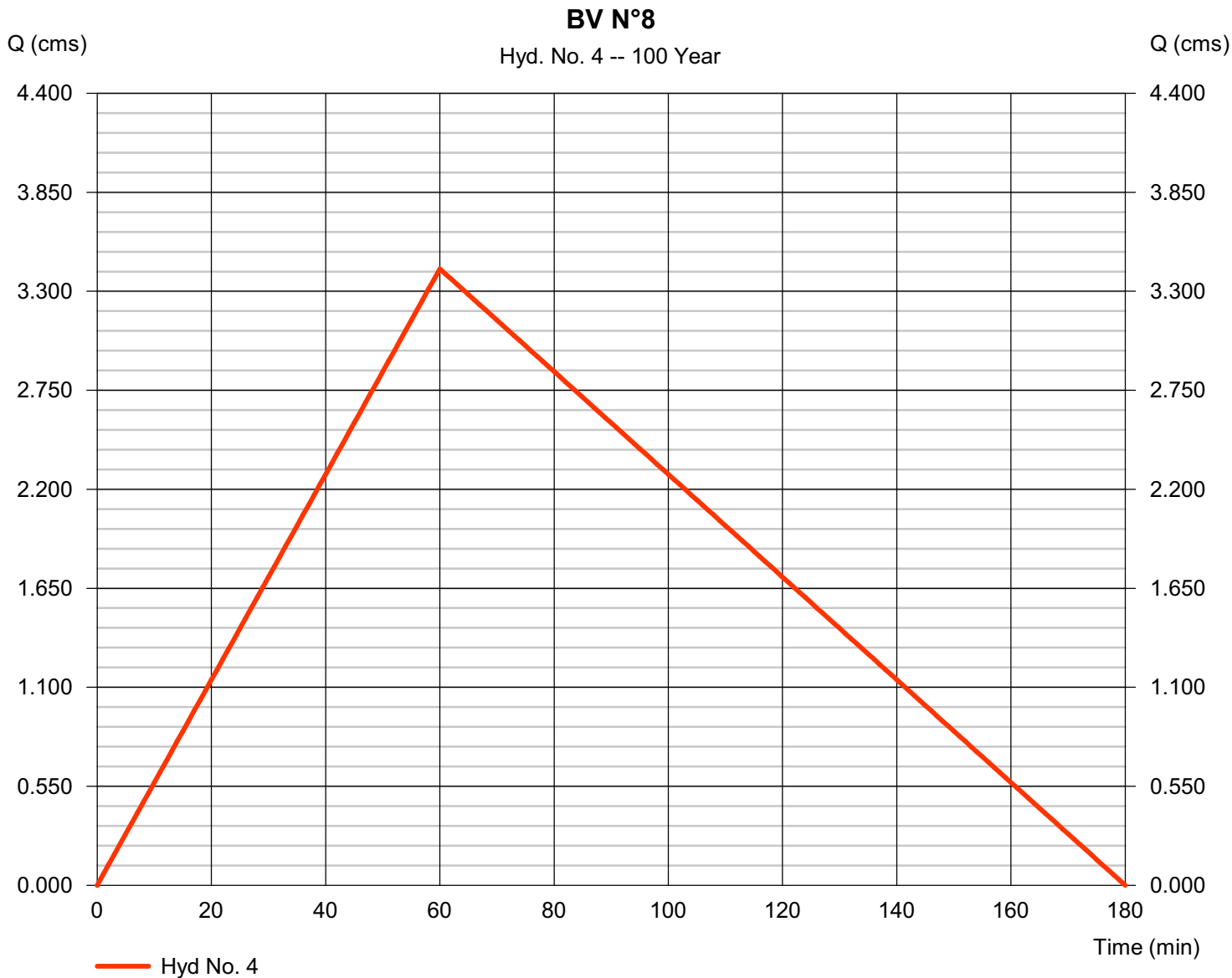
Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2010 by Autodesk, Inc. v9.25

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## Hyd. No. 4

BV N°8

Hydrograph type	= Rational	Peak discharge	= 3.425 cms
Storm frequency	= 100 yrs	Time to peak	= 60 min
Time interval	= 1 min	Hyd. volume	= 18 493.9 cum
Drainage area	= 149.100 hectare	Runoff coeff.	= 0.22
Intensity	= 37.900 mm/hr	Tc by User	= 60.00 min
IDF Curve	= IDF_ALSACE.IDF	Asc/Rec limb fact	= 1/2



# Hydrograph Report

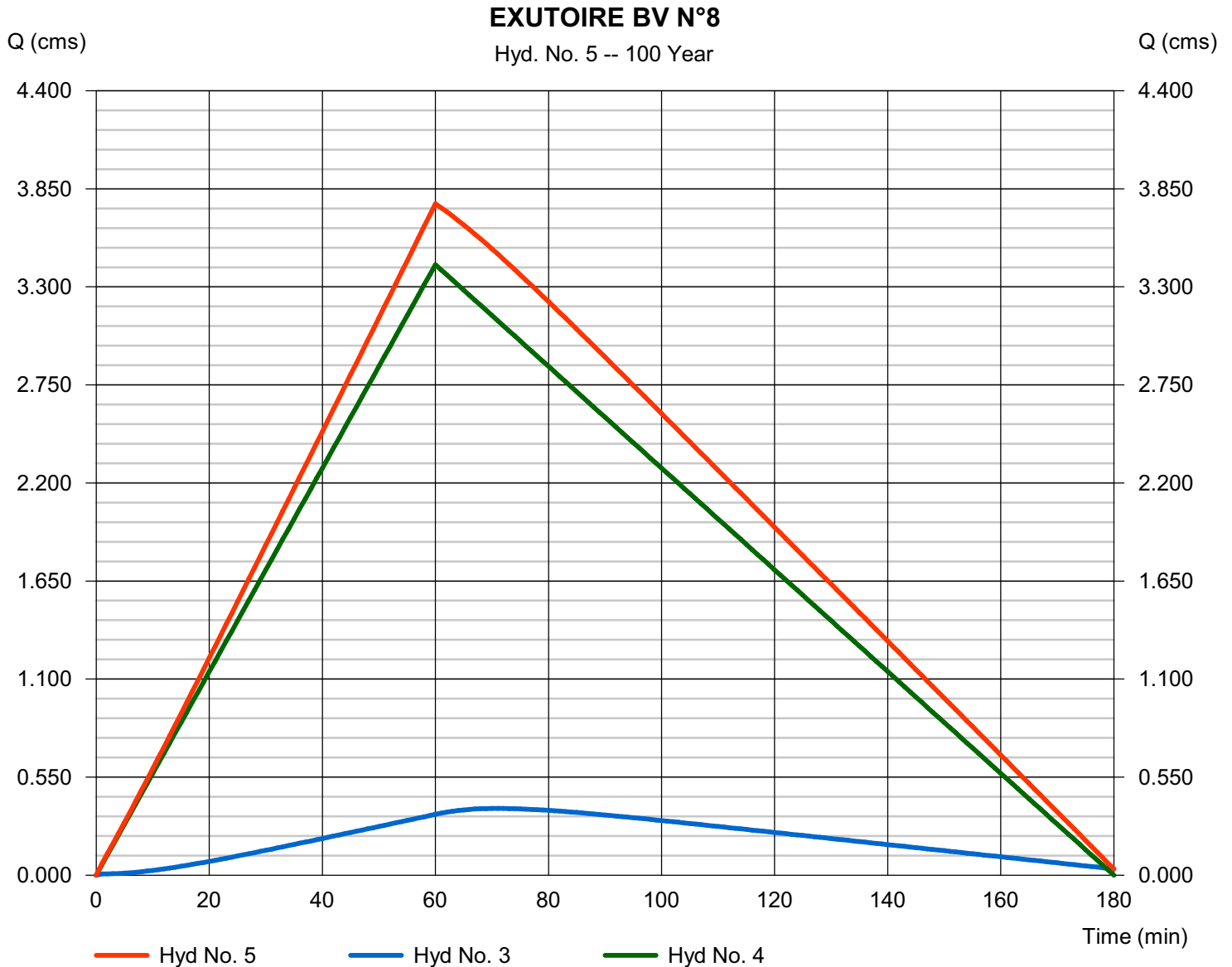
Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2010 by Autodesk, Inc. v9.25

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## Hyd. No. 5

EXUTOIRE BV N°8

Hydrograph type	= Combine	Peak discharge	= 3.766 cms
Storm frequency	= 100 yrs	Time to peak	= 60 min
Time interval	= 1 min	Hyd. volume	= 20 710.9 cum
Inflow hyds.	= 3, 4	Contrib. drain. area	= 149.100 hectare



# Hydrograph Report

Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2010 by Autodesk, Inc. v9.25

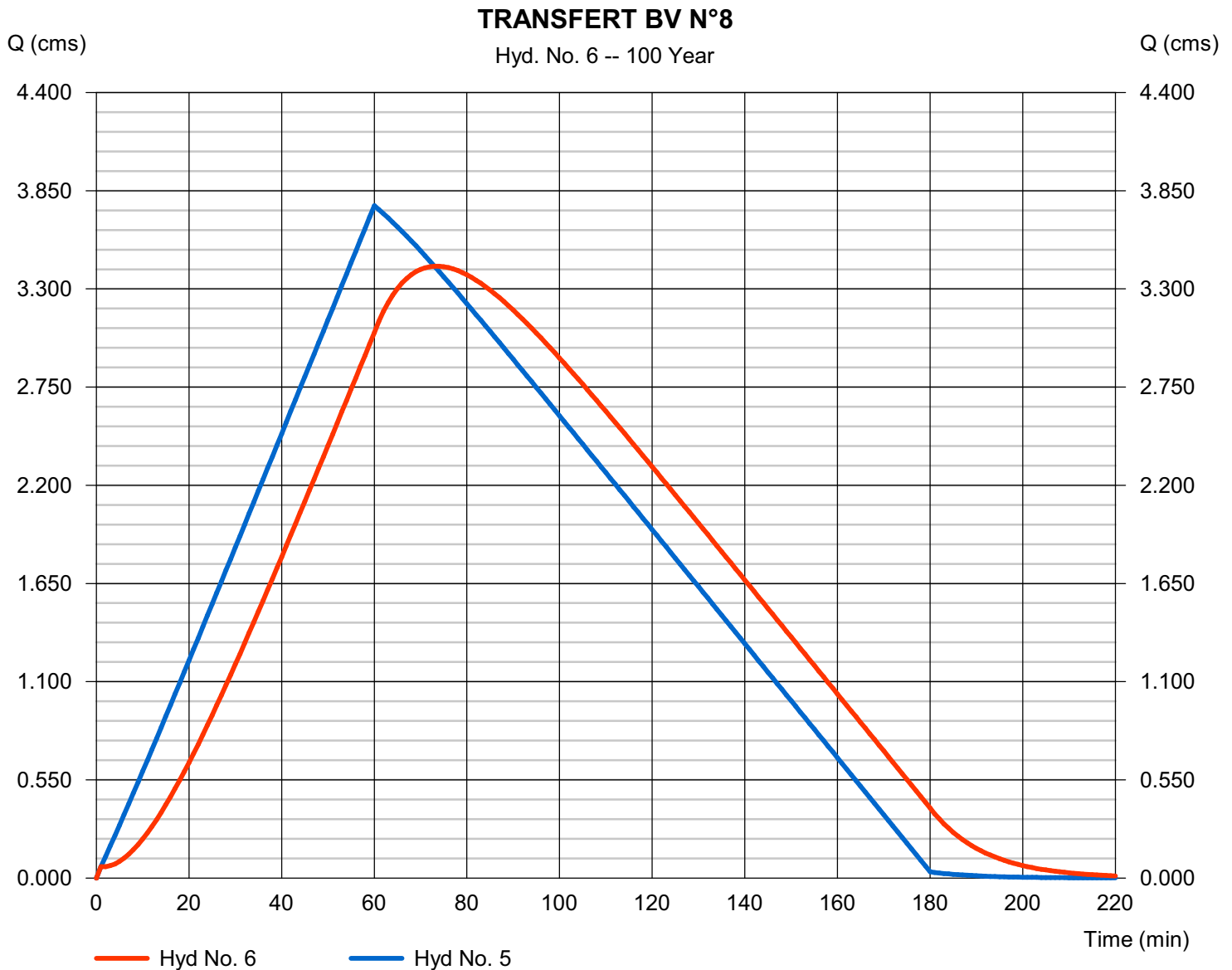
mardi, janv 19, 2010

## Hyd. No. 6

### TRANSFERT BV N°8

Hydrograph type	= Reach	Peak discharge	= 3.428 cms
Storm frequency	= 100 yrs	Time to peak	= 73 min
Time interval	= 1 min	Hyd. volume	= 20 753.6 cum
Inflow hyd. No.	= 5 - EXUTOIRE BV N°8	Section type	= Rectangular
Reach length	= 1705.0 m	Channel slope	= 0.9 %
Manning's n	= 0.025	Bottom width	= 2.0 m
Side slope	= 0.0:1	Max. depth	= 4.0 m
Rating curve x	= 1.648	Rating curve m	= 1.426
Ave. velocity	= 1.86 m/s	Routing coeff.	= 0.0894

Modified Att-Kin routing method used.



# Hydrograph Report

Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2010 by Autodesk, Inc. v9.25

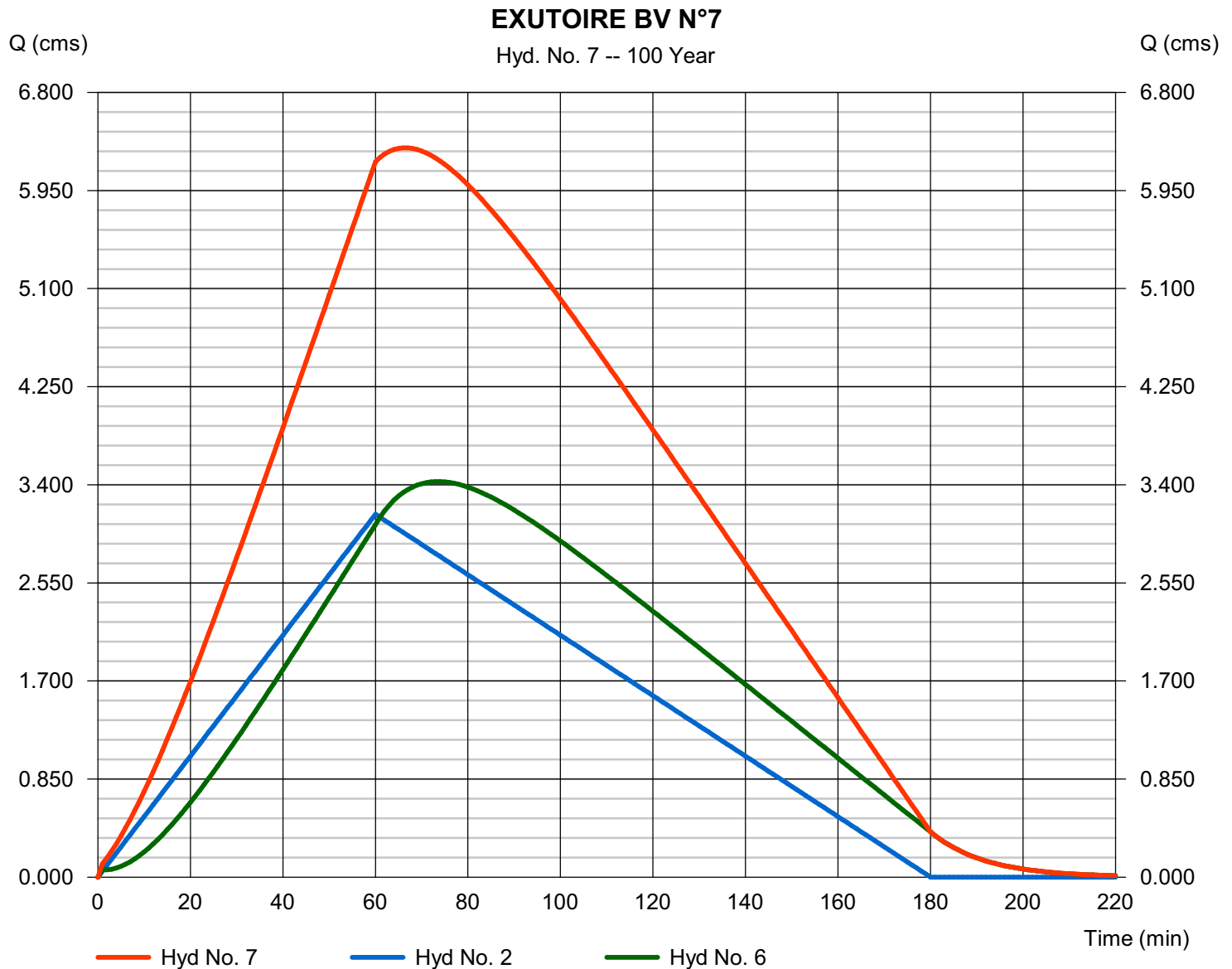
mardi, janv 19, 2010

## Hyd. No. 7

EXUTOIRE BV N°7

Hydrograph type = Combine  
 Storm frequency = 100 yrs  
 Time interval = 1 min  
 Inflow hyds. = 2, 6

Peak discharge = 6.320 cms  
 Time to peak = 66 min  
 Hyd. volume = 37 734.2 cum  
 Contrib. drain. area = 136.900 hectare

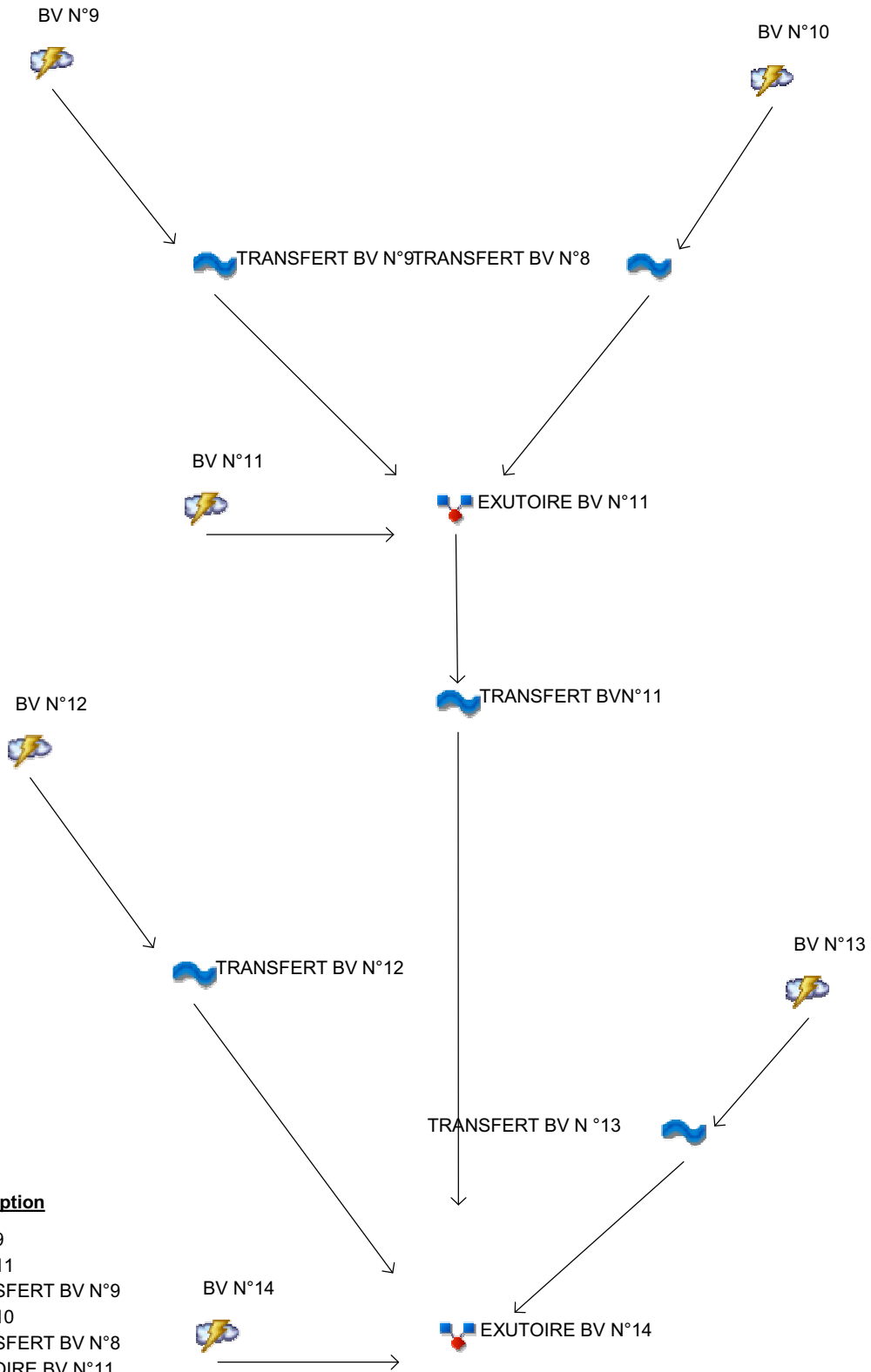




<b>Watershed Model Schematic.....</b>	<b>1</b>
<b>100 - Year</b>	
<b>Hydrograph Reports.....</b>	<b>2</b>
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Hydrograph No. 7, Combine, EXUTOIRE BV N°7.....	8

# Watershed Model Schematic

Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2010 by Autodesk, Inc. v9.25



## Legend

Hyd.	Origin	Description
1	Rational	BV N°9
2	Rational	BV N°11
3	Reach	TRANSFERT BV N°9
4	Rational	BV N°10
5	Reach	TRANSFERT BV N°8
6	Combine	EXUTOIRE BV N°11
7	Rational	BV N°12
8	Rational	BV N°13
9	Rational	BV N°14
10	Reach	TRANSFERT BV N°11
11	Reach	TRANSFERT BV N°12
12	Reach	TRANSFERT BV N°13
13	Combine	EXUTOIRE BV N°14

# Hydrograph Report

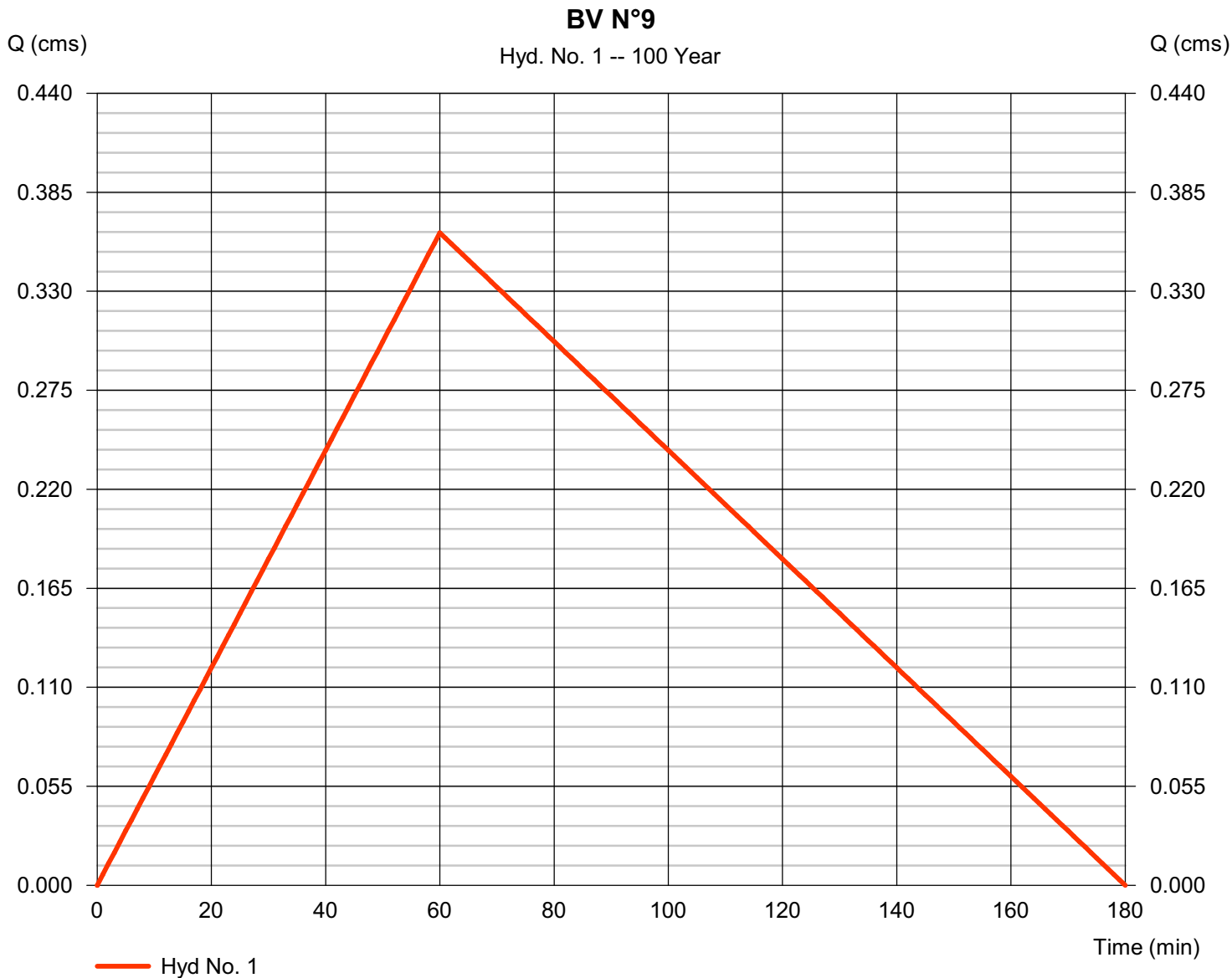
Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2010 by Autodesk, Inc. v9.25

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## Hyd. No. 1

BV N°9

Hydrograph type	= Rational	Peak discharge	= 0.363 cms
Storm frequency	= 100 yrs	Time to peak	= 60 min
Time interval	= 1 min	Hyd. volume	= 1 957.5 cum
Drainage area	= 11.200 hectare	Runoff coeff.	= 0.31
Intensity	= 37.900 mm/hr	Tc by User	= 60.00 min
IDF Curve	= IDF_ALSACE.IDF	Asc/Rec limb fact	= 1/2



# Hydrograph Report

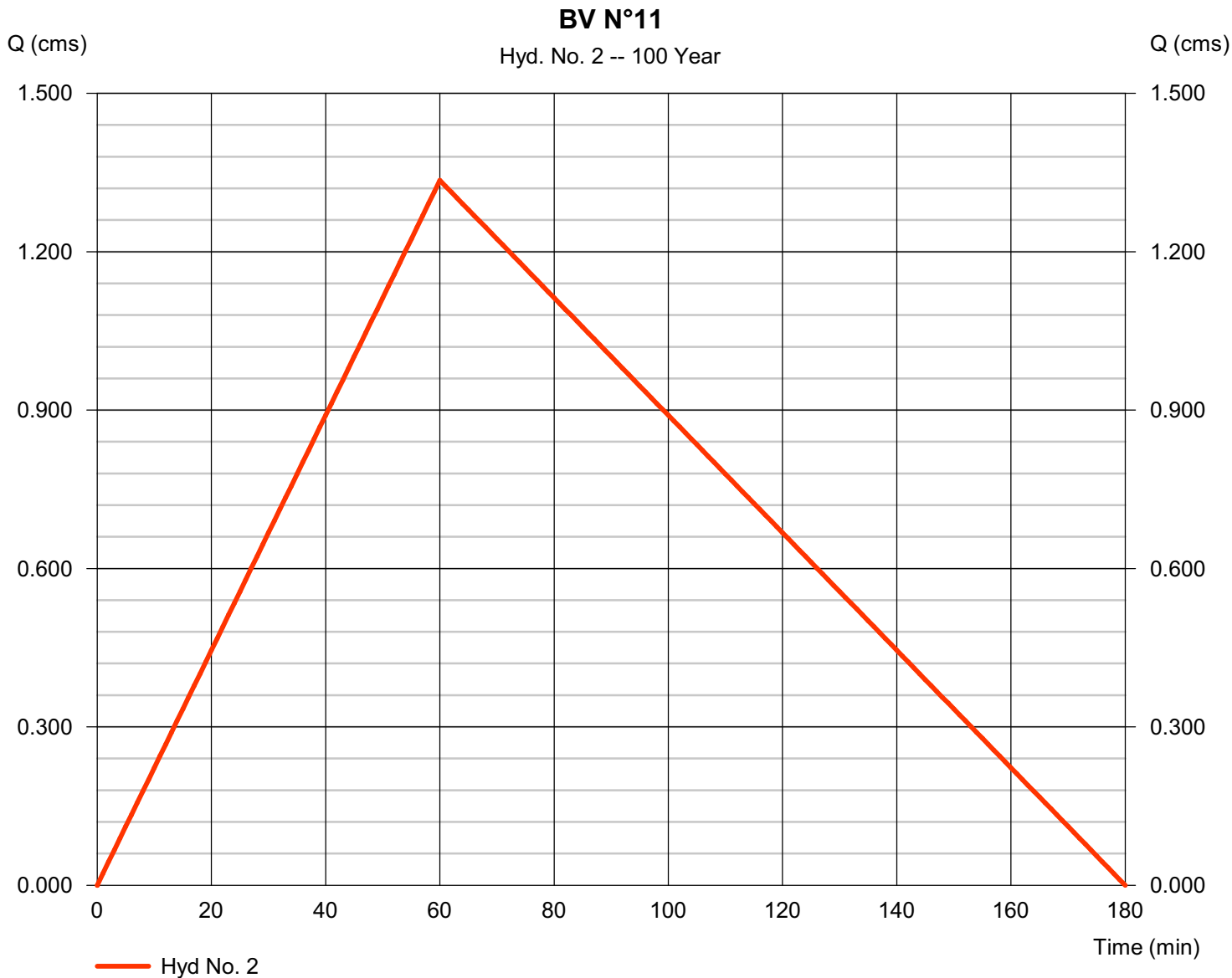
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## Hyd. No. 2

BV N°11

Hydrograph type	= Rational	Peak discharge	= 1.335 cms
Storm frequency	= 100 yrs	Time to peak	= 60 min
Time interval	= 1 min	Hyd. volume	= 7 210.5 cum
Drainage area	= 60.900 hectare	Runoff coeff.	= 0.21
Intensity	= 37.900 mm/hr	Tc by User	= 60.00 min
IDF Curve	= IDF_ALSACE.IDF	Asc/Rec limb fact	= 1/2



# Hydrograph Report

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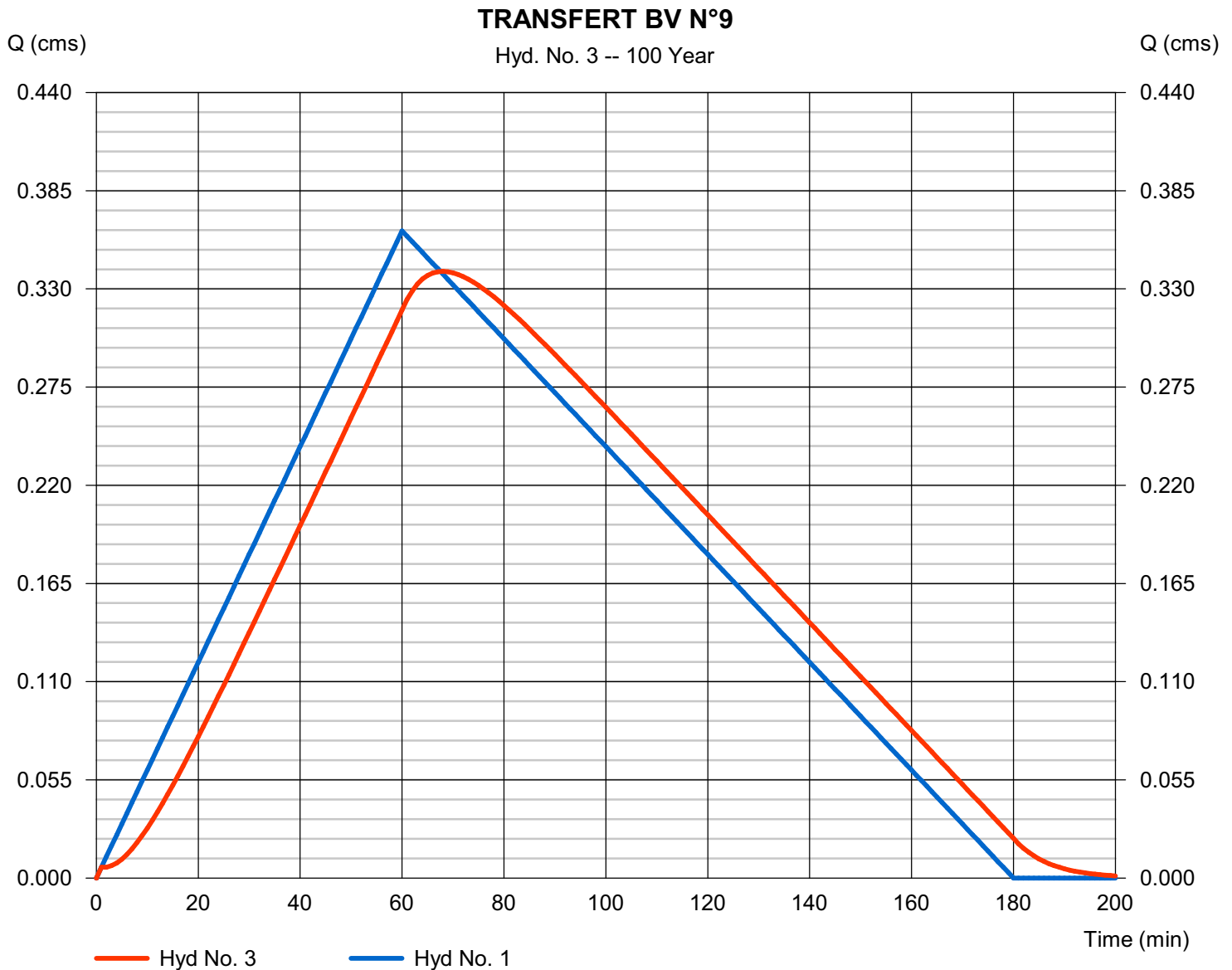
mardi, janv 19, 2010

## Hyd. No. 3

### TRANSFERT BV N°9

Hydrograph type	= Reach	Peak discharge	= 0.340 cms
Storm frequency	= 100 yrs	Time to peak	= 68 min
Time interval	= 1 min	Hyd. volume	= 1 960.1 cum
Inflow hyd. No.	= 1 - BV N°9	Section type	= Rectangular
Reach length	= 816.0 m	Channel slope	= 3.0 %
Manning's n	= 0.025	Bottom width	= 2.0 m
Side slope	= 0.0:1	Max. depth	= 4.0 m
Rating curve x	= 2.943	Rating curve m	= 1.426
Ave. velocity	= 1.39 m/s	Routing coeff.	= 0.1360

Modified Att-Kin routing method used.



# Hydrograph Report

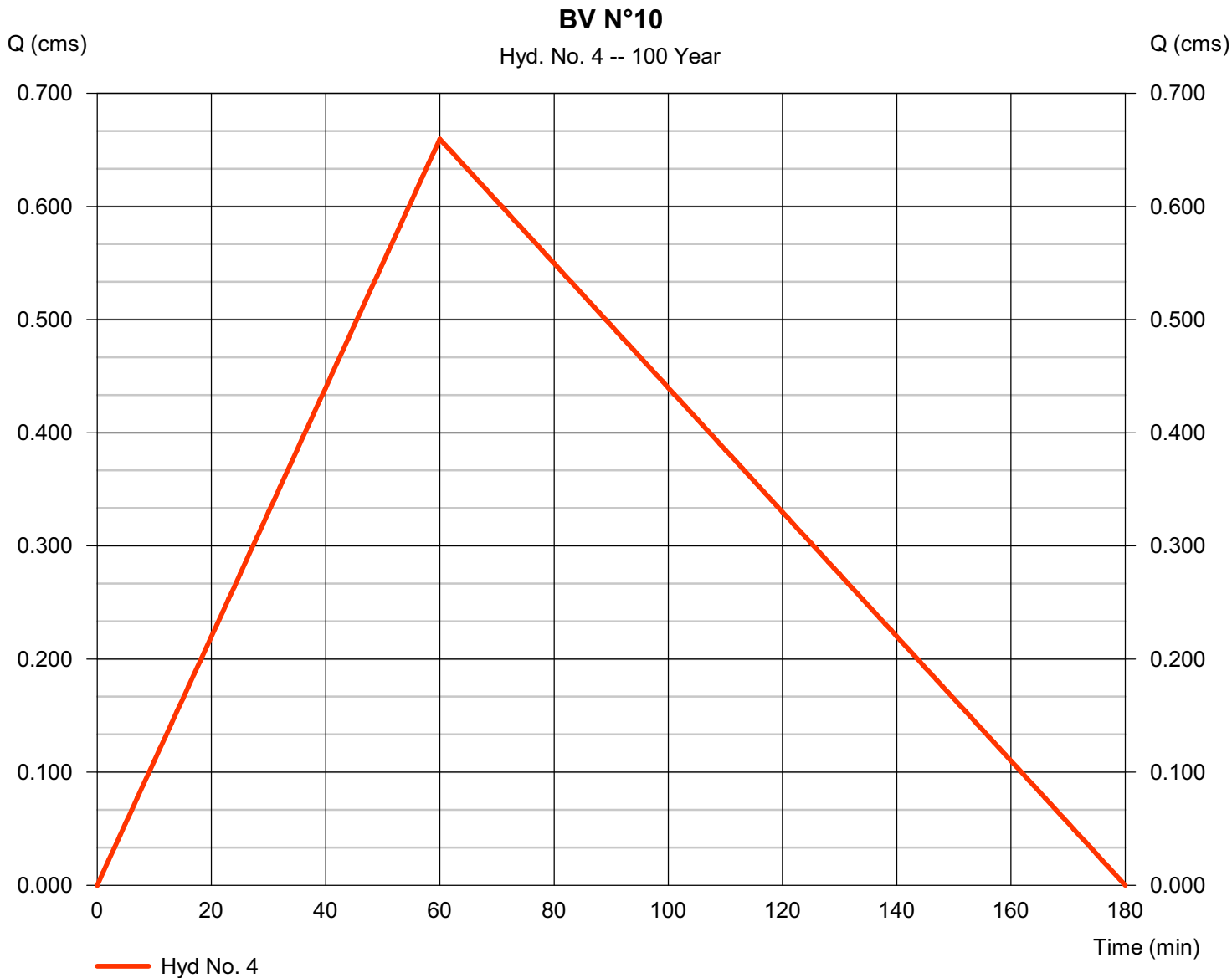
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## Hyd. No. 4

BV N°10

Hydrograph type	= Rational	Peak discharge	= 0.660 cms
Storm frequency	= 100 yrs	Time to peak	= 60 min
Time interval	= 1 min	Hyd. volume	= 3 562.1 cum
Drainage area	= 24.300 hectare	Runoff coeff.	= 0.26
Intensity	= 37.900 mm/hr	Tc by User	= 60.00 min
IDF Curve	= IDF_ALSACE.IDF	Asc/Rec limb fact	= 1/2



# Hydrograph Report

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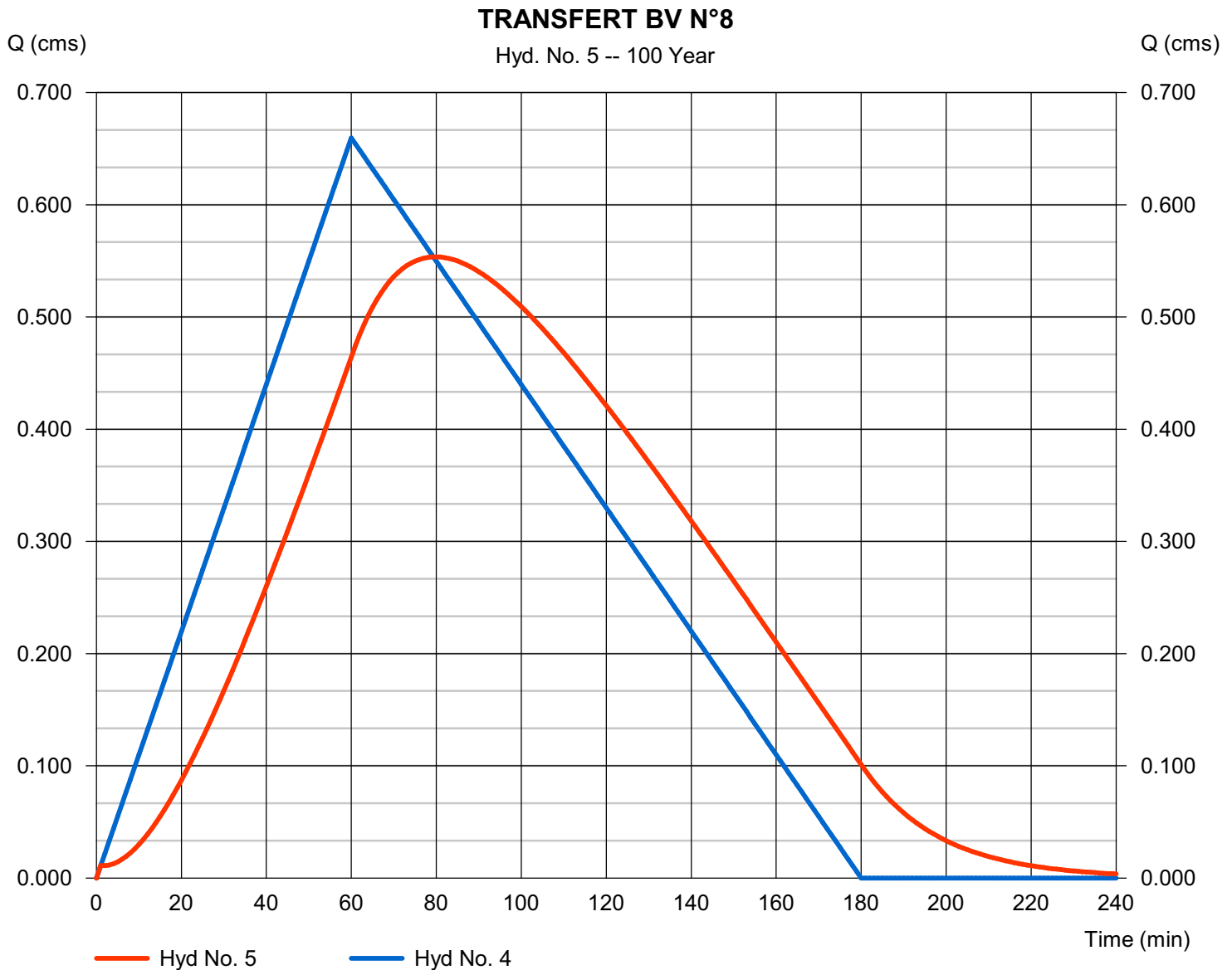
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## Hyd. No. 5

### TRANSFERT BV N°8

Hydrograph type	= Reach	Peak discharge	= 0.554 cms
Storm frequency	= 100 yrs	Time to peak	= 80 min
Time interval	= 1 min	Hyd. volume	= 3 574.0 cum
Inflow hyd. No.	= 4 - BV N°10	Section type	= Rectangular
Reach length	= 1705.0 m	Channel slope	= 0.9 %
Manning's n	= 0.025	Bottom width	= 2.0 m
Side slope	= 0.0:1	Max. depth	= 4.0 m
Rating curve x	= 1.648	Rating curve m	= 1.426
Ave. velocity	= 1.11 m/s	Routing coeff.	= 0.0541

Modified Att-Kin routing method used.



# Hydrograph Report

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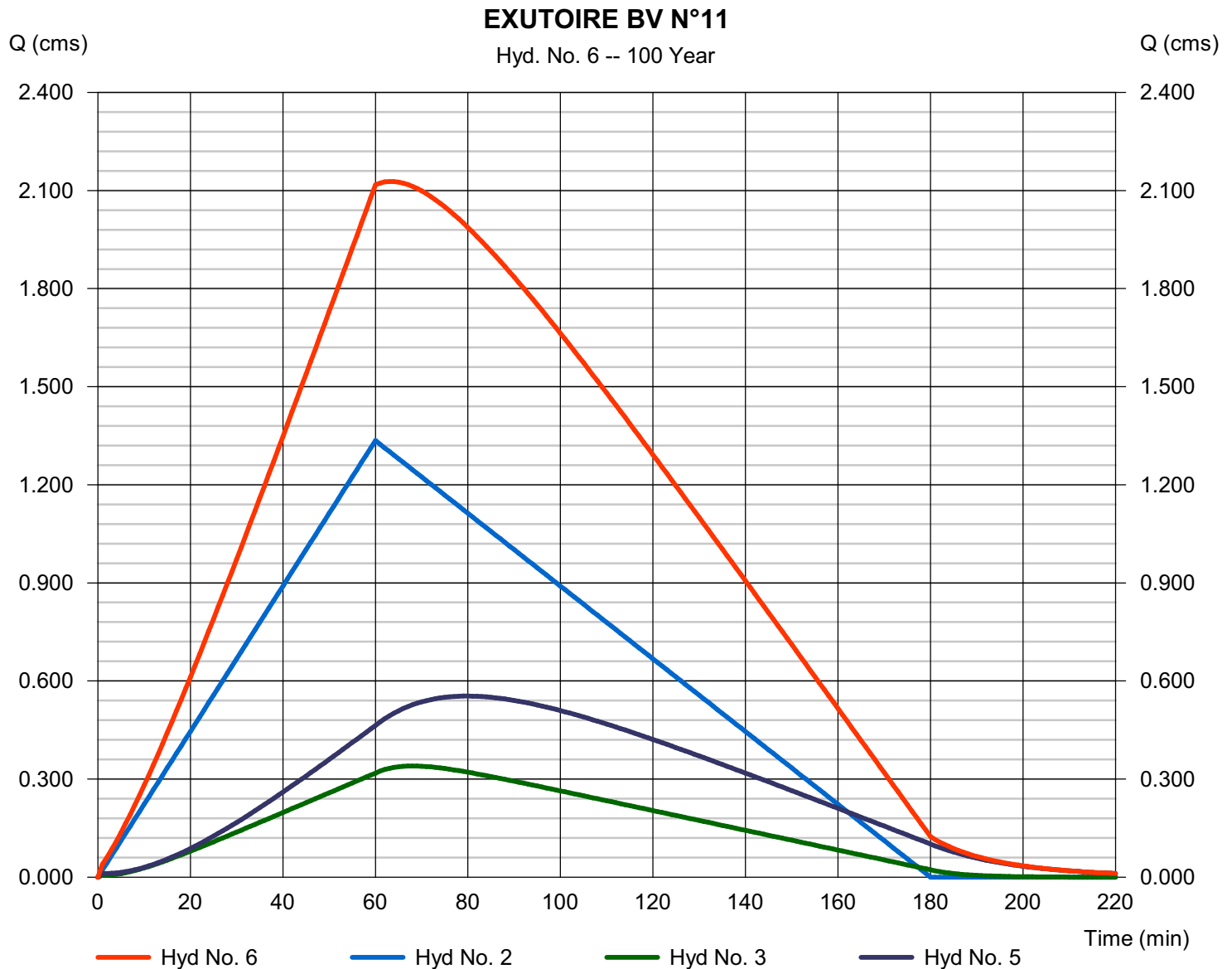
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## Hyd. No. 6

EXUTOIRE BV N°11

Hydrograph type = Combine  
 Storm frequency = 100 yrs  
 Time interval = 1 min  
 Inflow hyds. = 2, 3, 5

Peak discharge = 2.128 cms  
 Time to peak = 63 min  
 Hyd. volume = 12 744.6 cum  
 Contrib. drain. area = 60.900 hectare





# Hydrograph Report

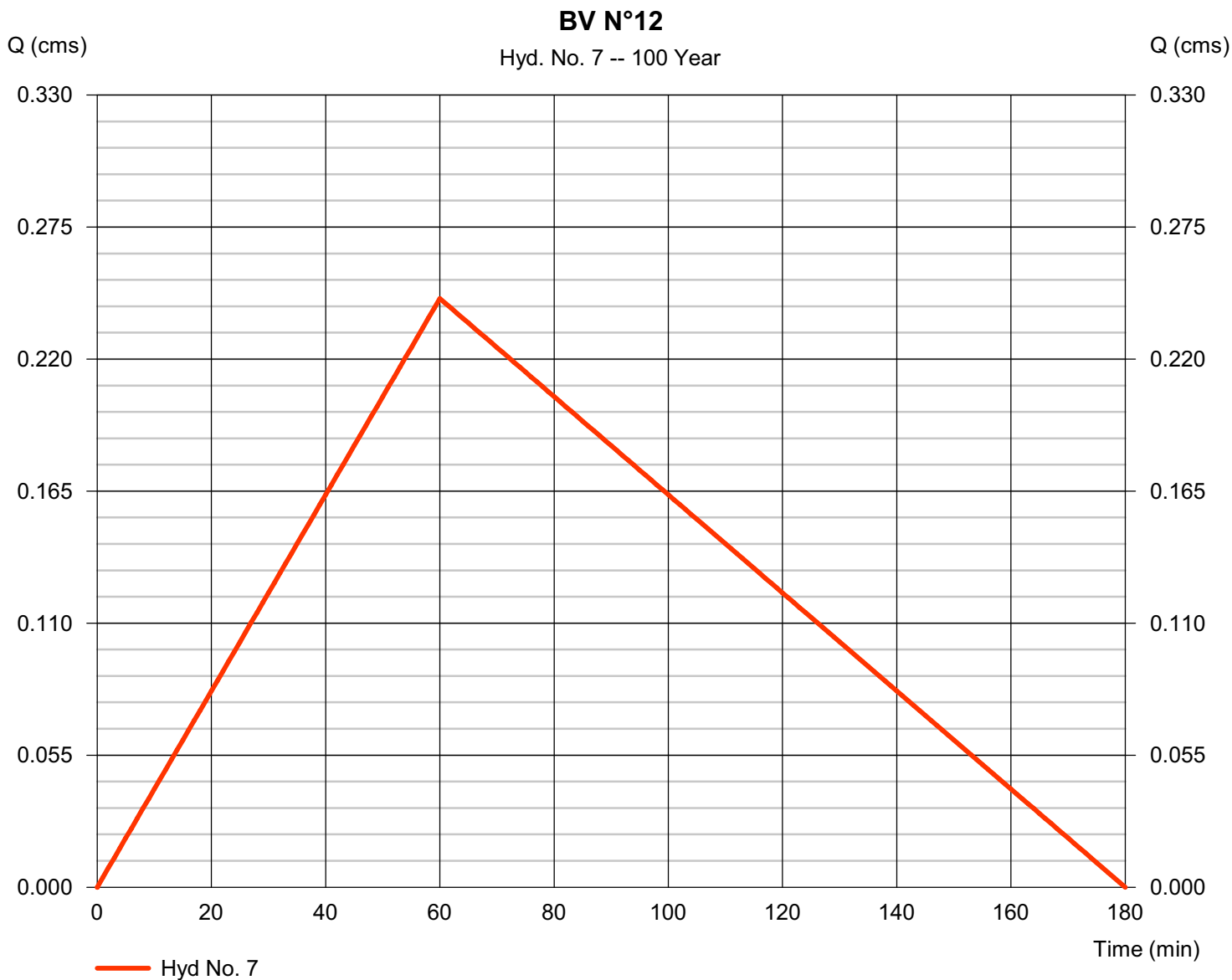
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## Hyd. No. 7

BV N°12

Hydrograph type	= Rational	Peak discharge	= 0.245 cms
Storm frequency	= 100 yrs	Time to peak	= 60 min
Time interval	= 1 min	Hyd. volume	= 1 324.4 cum
Drainage area	= 8.100 hectare	Runoff coeff.	= 0.29
Intensity	= 37.900 mm/hr	Tc by User	= 60.00 min
IDF Curve	= IDF_ALSACE.IDF	Asc/Rec limb fact	= 1/2



# Hydrograph Report

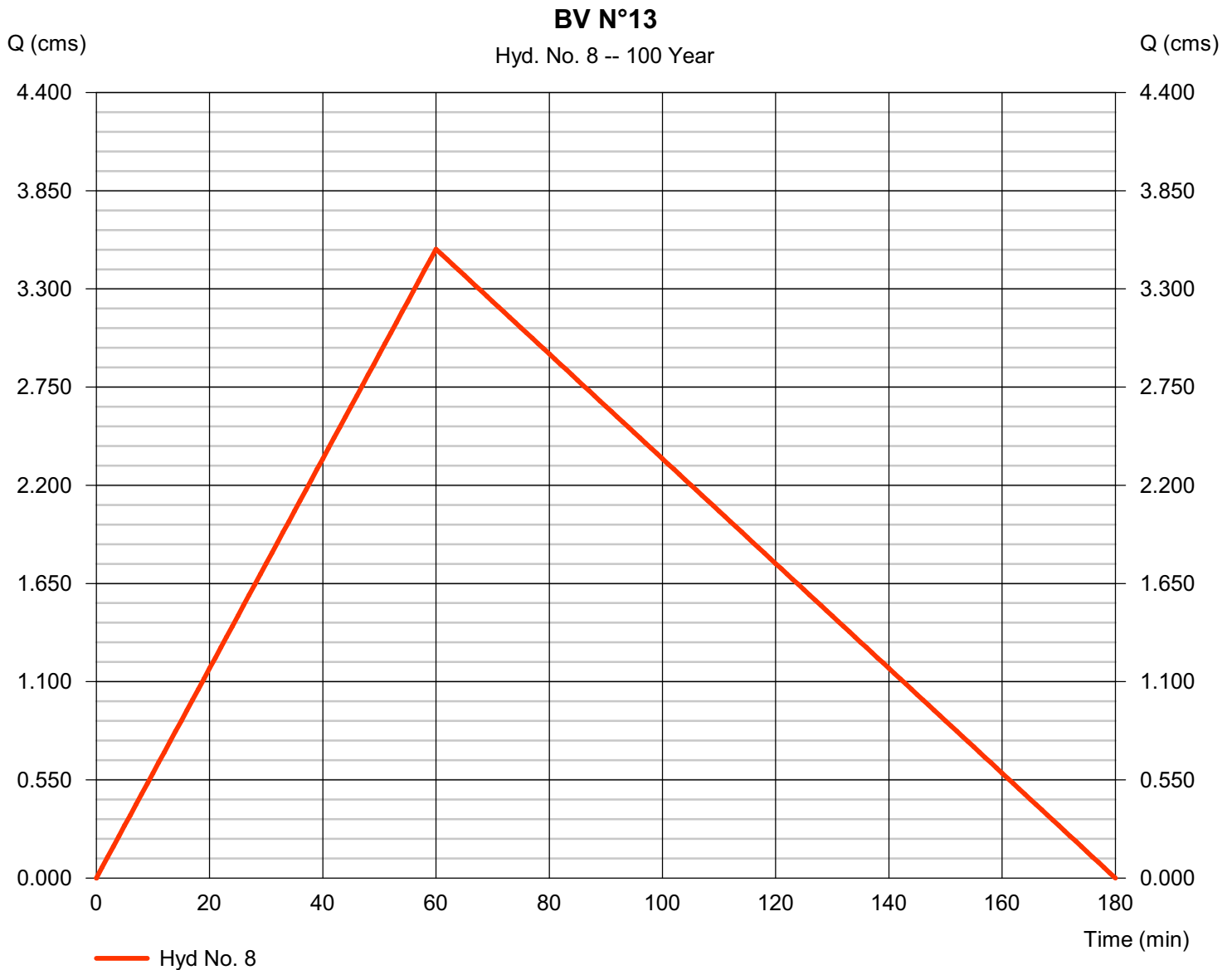
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## Hyd. No. 8

BV N°13

Hydrograph type	= Rational	Peak discharge	= 3.523 cms
Storm frequency	= 100 yrs	Time to peak	= 60 min
Time interval	= 1 min	Hyd. volume	= 19 025.0 cum
Drainage area	= 140.600 hectare	Runoff coeff.	= 0.24
Intensity	= 37.900 mm/hr	Tc by User	= 60.00 min
IDF Curve	= IDF_ALSACE.IDF	Asc/Rec limb fact	= 1/2



# Hydrograph Report

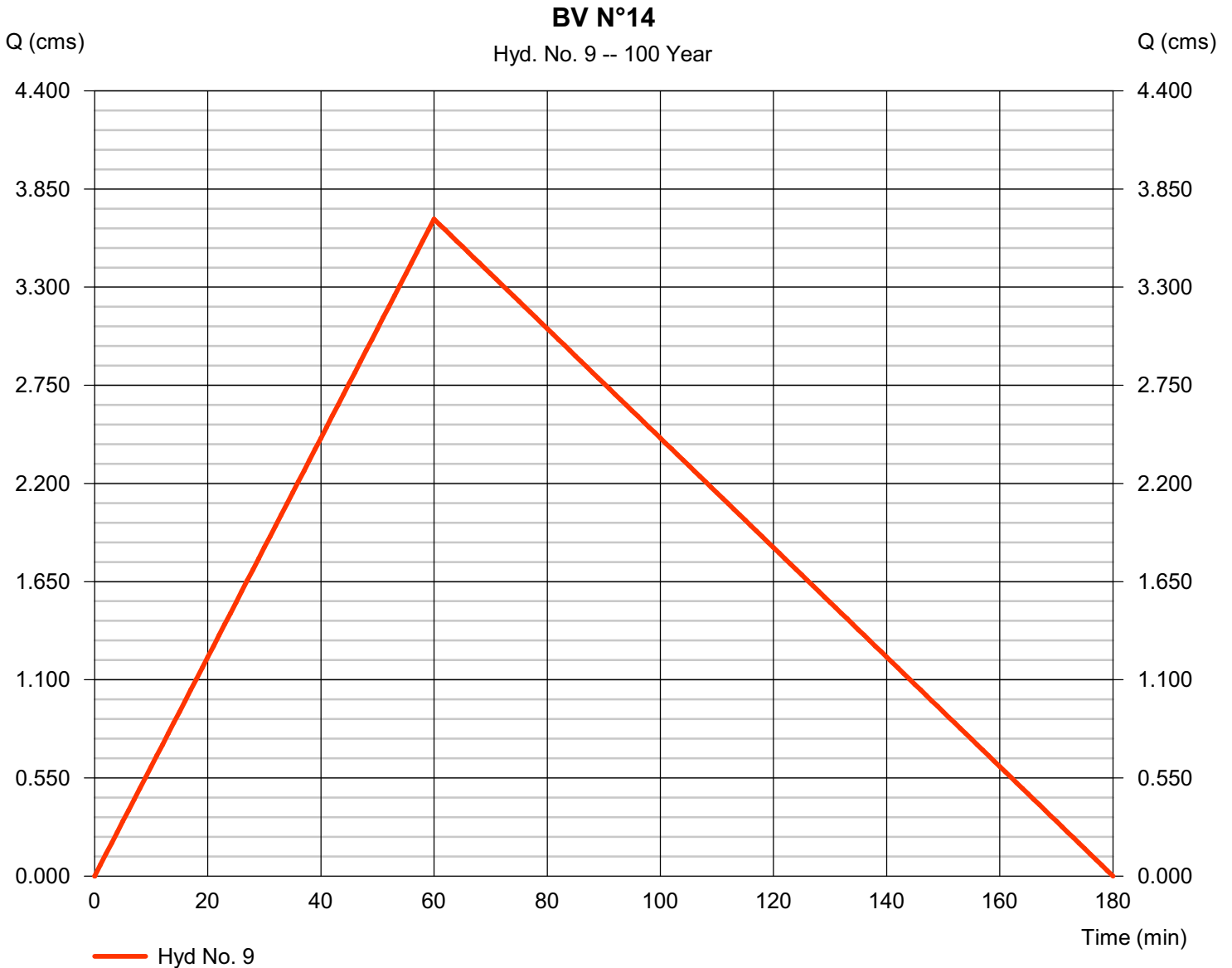
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## Hyd. No. 9

BV N°14

Hydrograph type	= Rational	Peak discharge	= 3.681 cms
Storm frequency	= 100 yrs	Time to peak	= 60 min
Time interval	= 1 min	Hyd. volume	= 19 879.2 cum
Drainage area	= 153.300 hectare	Runoff coeff.	= 0.23
Intensity	= 37.900 mm/hr	Tc by User	= 60.00 min
IDF Curve	= IDF_ALSACE.IDF	Asc/Rec limb fact	= 1/2



# Hydrograph Report

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## Hyd. No. 10

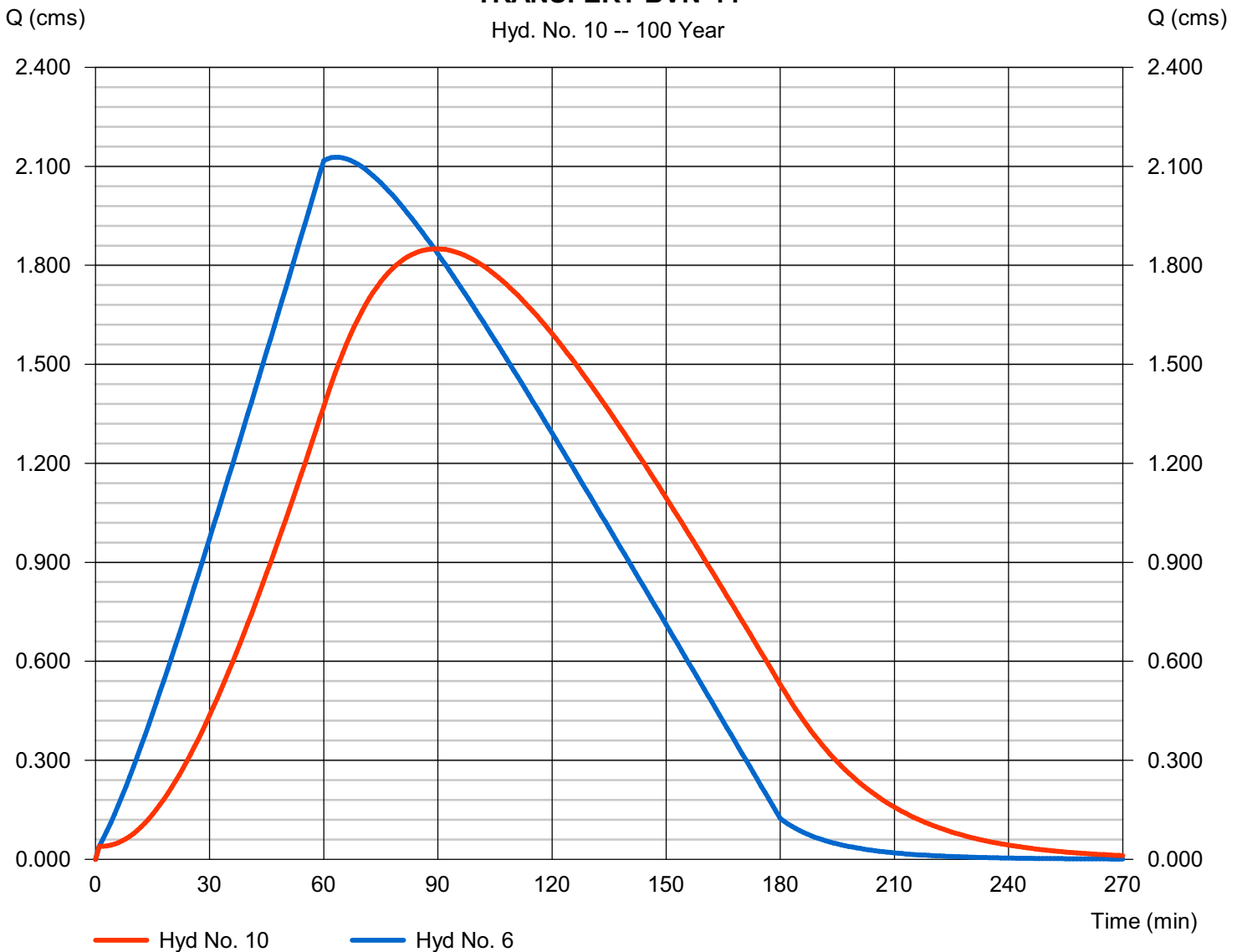
### TRANSFERT BVN°11

Hydrograph type	= Reach	Peak discharge	= 1.850 cms
Storm frequency	= 100 yrs	Time to peak	= 90 min
Time interval	= 1 min	Hyd. volume	= 12 793.9 cum
Inflow hyd. No.	= 6 - EXUTOIRE BV N°11	Section type	= Trapezoidal
Reach length	= 2352.0 m	Channel slope	= 0.6 %
Manning's n	= 0.025	Bottom width	= 2.0 m
Side slope	= 0.0:1	Max. depth	= 4.0 m
Rating curve x	= 1.305	Rating curve m	= 1.426
Ave. velocity	= 1.34 m/s	Routing coeff.	= 0.0474

Modified Att-Kin routing method used.

### TRANSFERT BVN°11

Hyd. No. 10 -- 100 Year



# Hydrograph Report

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## Hyd. No. 11

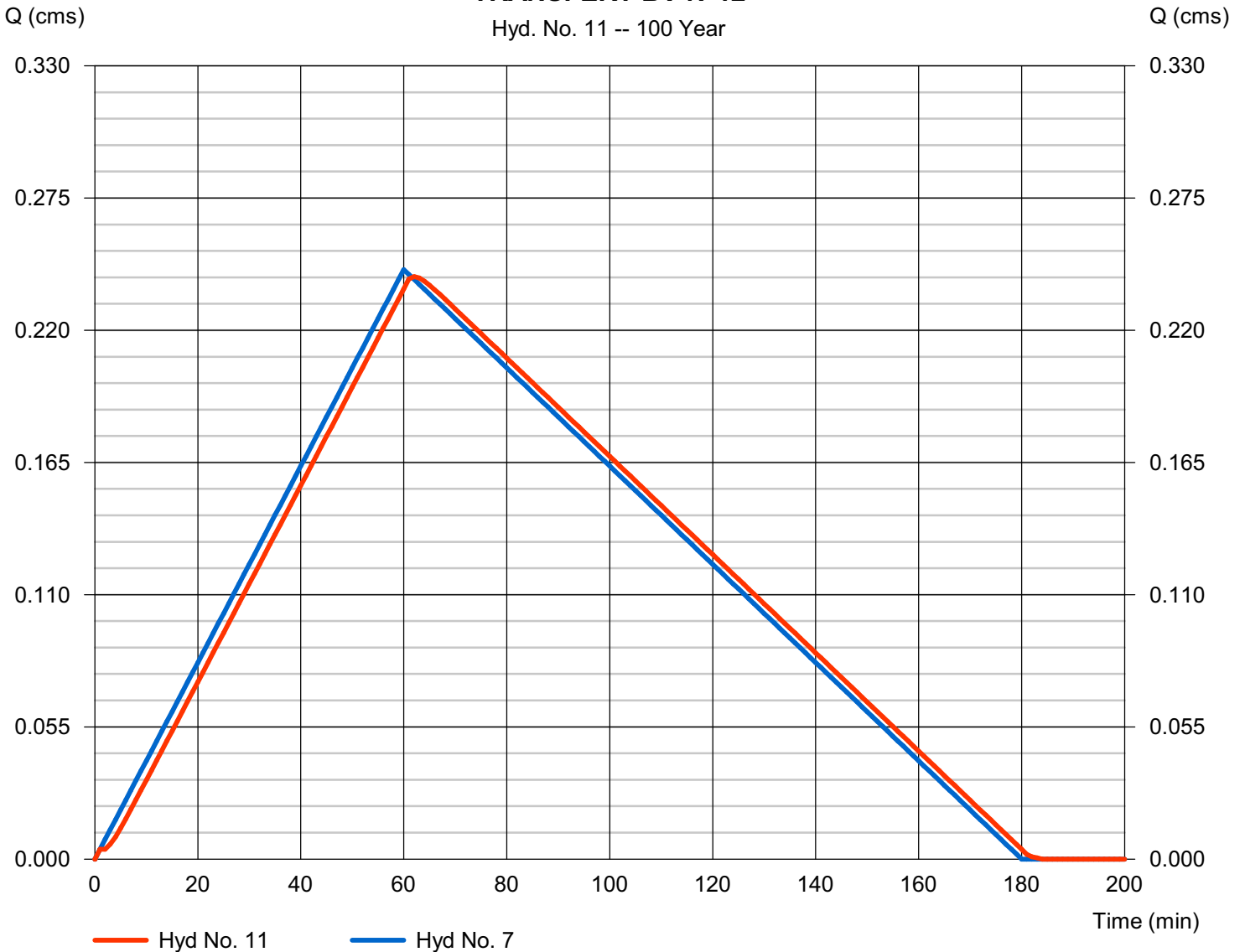
### TRANSFERT BV N°12

Hydrograph type	= Reach	Peak discharge	= 0.242 cms
Storm frequency	= 100 yrs	Time to peak	= 62 min
Time interval	= 1 min	Hyd. volume	= 1 324.8 cum
Inflow hyd. No.	= 7 - BV N°12	Section type	= Rectangular
Reach length	= 268.0 m	Channel slope	= 3.3 %
Manning's n	= 0.011	Bottom width	= 3.5 m
Side slope	= 0.0:1	Max. depth	= 0.1 m
Rating curve x	= 4.831	Rating curve m	= 1.639
Ave. velocity	= 1.85 m/s	Routing coeff.	= 0.5066

Modified Att-Kin routing method used.

### TRANSFERT BV N°12

Hyd. No. 11 -- 100 Year



# Hydrograph Report

## Hyd. No. 12

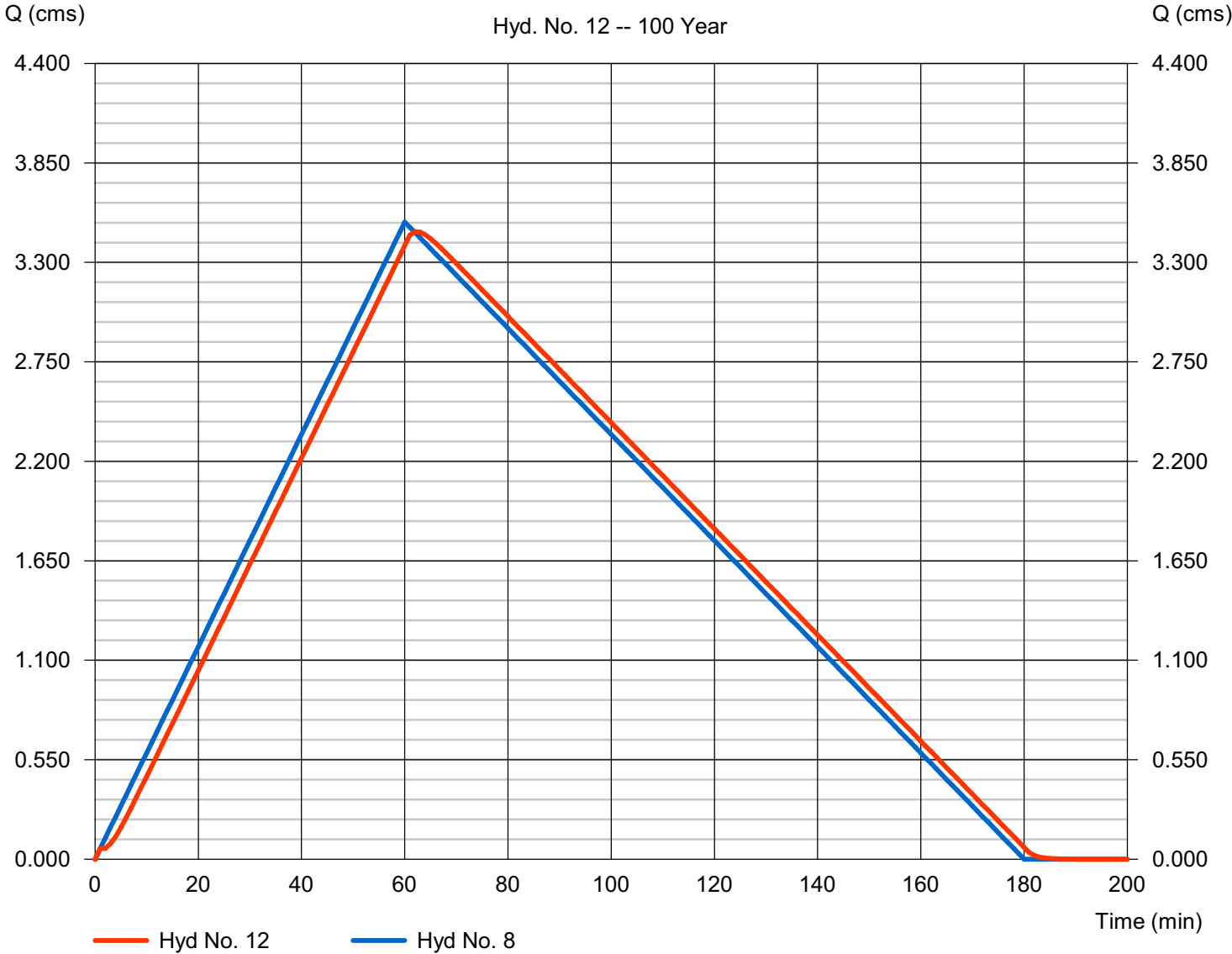
TRANSFERT BV N °13

Hydrograph type	= Reach	Peak discharge	= 3.470 cms
Storm frequency	= 100 yrs	Time to peak	= 62 min
Time interval	= 1 min	Hyd. volume	= 19 032.9 cum
Inflow hyd. No.	= 8 - BV N°13	Section type	= Rectangular
Reach length	= 485.0 m	Channel slope	= 1.4 %
Manning's n	= 0.013	Bottom width	= 0.7 m
Side slope	= 0.0:1	Max. depth	= 1.4 m
Rating curve x	= 7.789	Rating curve m	= 1.213
Ave. velocity	= 3.86 m/s	Routing coeff.	= 0.4489

Modified Att-Kin routing method used.

### TRANSFERT BV N °13

Hyd. No. 12 -- 100 Year



# Hydrograph Report

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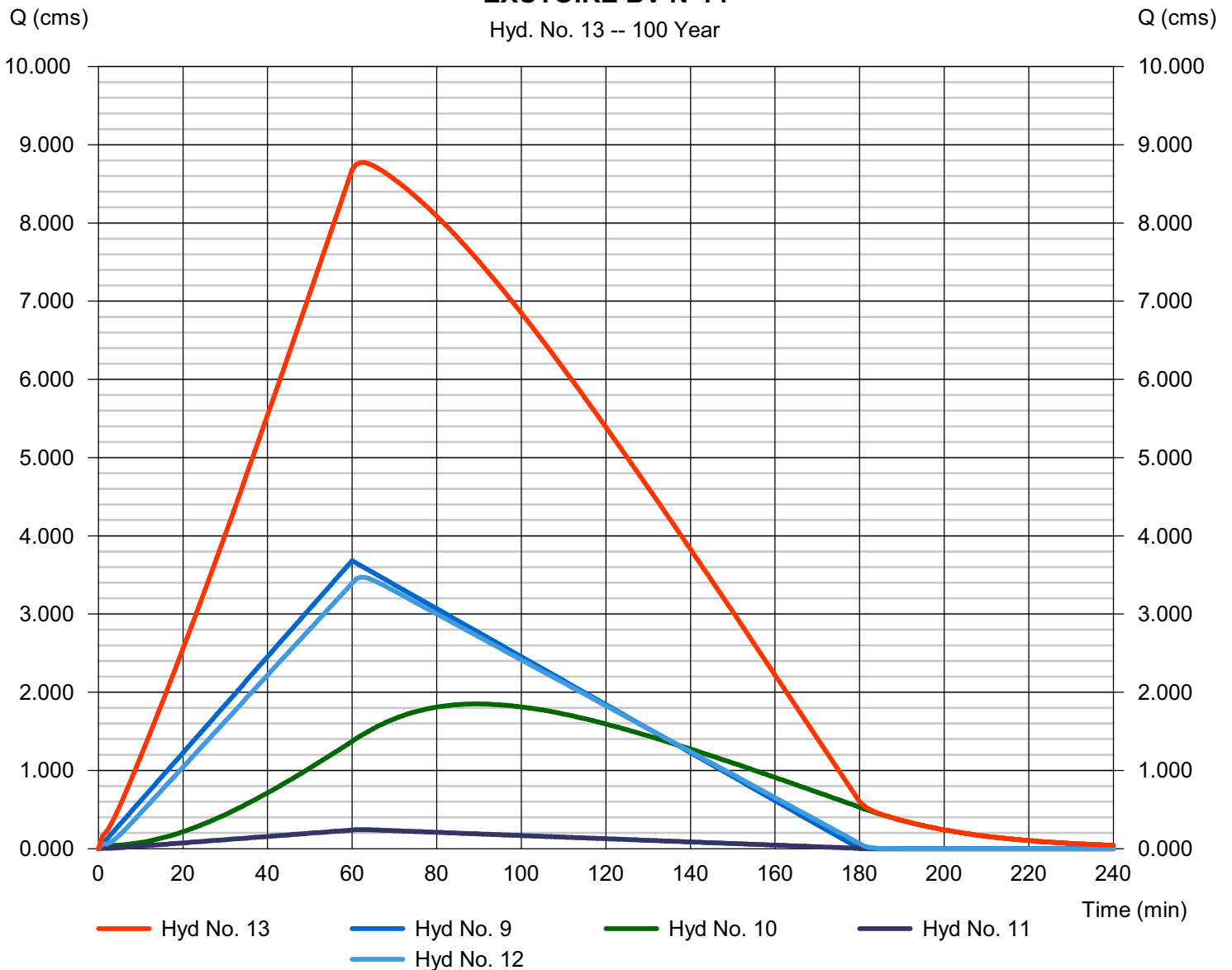
## Hyd. No. 13

EXUTOIRE BV N°14

Hydrograph type	= Combine	Peak discharge	= 8.774 cms
Storm frequency	= 100 yrs	Time to peak	= 62 min
Time interval	= 1 min	Hyd. volume	= 53 030.8 cum
Inflow hyds.	= 9, 10, 11, 12	Contrib. drain. area	= 153.300 hectare

### EXUTOIRE BV N°14

Hyd. No. 13 -- 100 Year



## **Watershed Model Schematic..... 1**

### **100 - Year**

#### **Hydrograph Reports..... 2**

Hydrograph No. 1, Rational, BV N°9..... 2

Hydrograph No. 2, Rational, BV N°11..... 3

Hydrograph No. 3, Reach, TRANSFERT BV N°9..... 4

Hydrograph No. 4, Rational, BV N°10..... 5

Hydrograph No. 5, Reach, TRANSFERT BV N°8..... 6

Hydrograph No. 6, Combine, EXUTOIRE BV N°11..... 7

Hydrograph No. 7, Rational, BV N°12..... 8

Hydrograph No. 8, Rational, BV N°13..... 9

Hydrograph No. 9, Rational, BV N°14..... 10

Hydrograph No. 10, Reach, TRANSFERT BV N°11..... 11

Hydrograph No. 11, Reach, TRANSFERT BV N°12..... 12

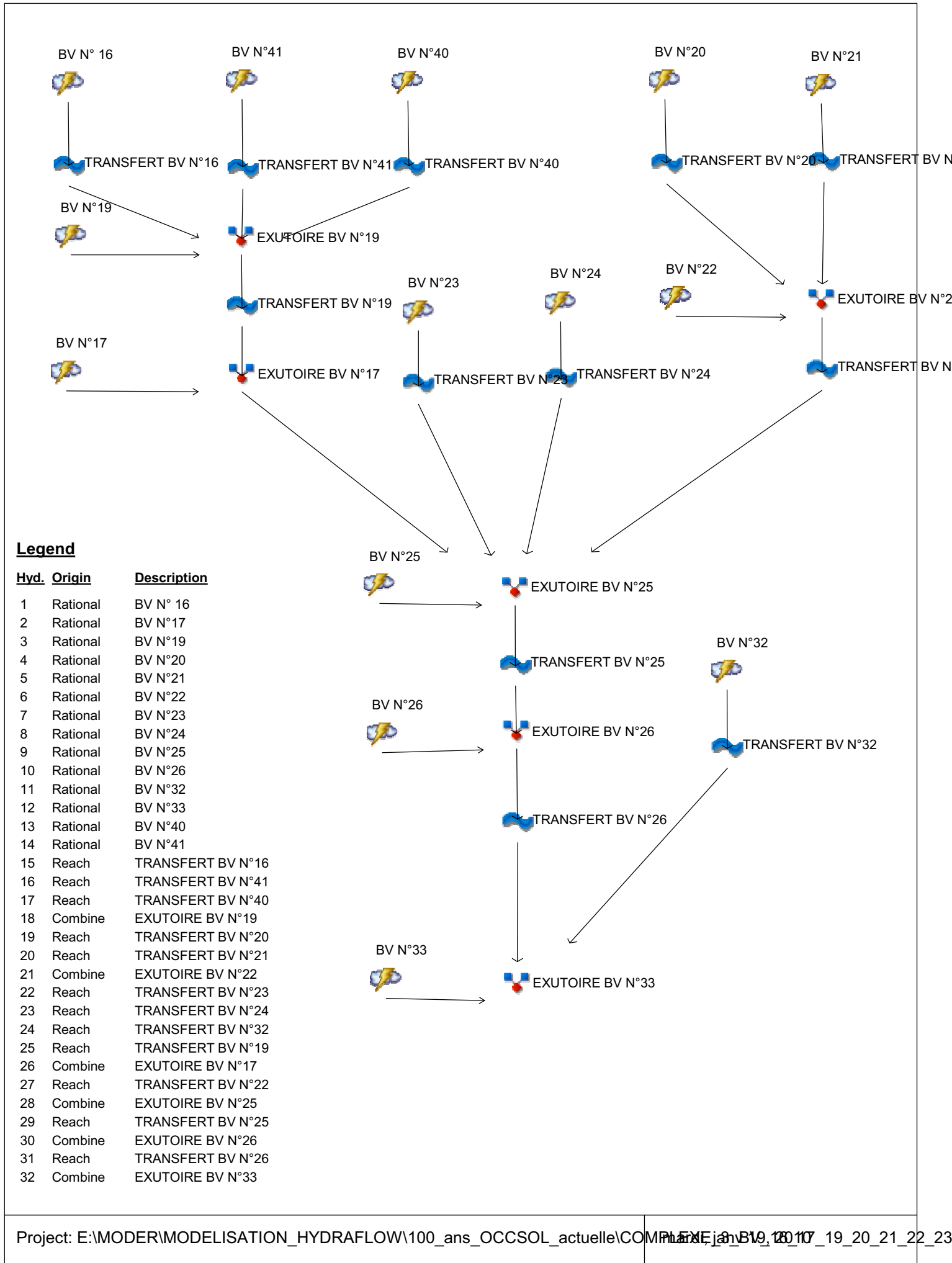
Hydrograph No. 12, Reach, TRANSFERT BV N °13..... 13

Hydrograph No. 13, Combine, EXUTOIRE BV N°14..... 14



# Watershed Model Schematic

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**Legend**

Hyd.	Origin	Description
1	Rational	BV N° 16
2	Rational	BV N°17
3	Rational	BV N°19
4	Rational	BV N°20
5	Rational	BV N°21
6	Rational	BV N°22
7	Rational	BV N°23
8	Rational	BV N°24
9	Rational	BV N°25
10	Rational	BV N°26
11	Rational	BV N°32
12	Rational	BV N°33
13	Rational	BV N°40
14	Rational	BV N°41
15	Reach	TRANSFERT BV N°16
16	Reach	TRANSFERT BV N°41
17	Reach	TRANSFERT BV N°40
18	Combine	EXUTOIRE BV N°19
19	Reach	TRANSFERT BV N°20
20	Reach	TRANSFERT BV N°21
21	Combine	EXUTOIRE BV N°22
22	Reach	TRANSFERT BV N°23
23	Reach	TRANSFERT BV N°24
24	Reach	TRANSFERT BV N°32
25	Reach	TRANSFERT BV N°19
26	Combine	EXUTOIRE BV N°17
27	Reach	TRANSFERT BV N°22
28	Combine	EXUTOIRE BV N°25
29	Reach	TRANSFERT BV N°25
30	Combine	EXUTOIRE BV N°26
31	Reach	TRANSFERT BV N°26
32	Combine	EXUTOIRE BV N°33

# Hydrograph Report

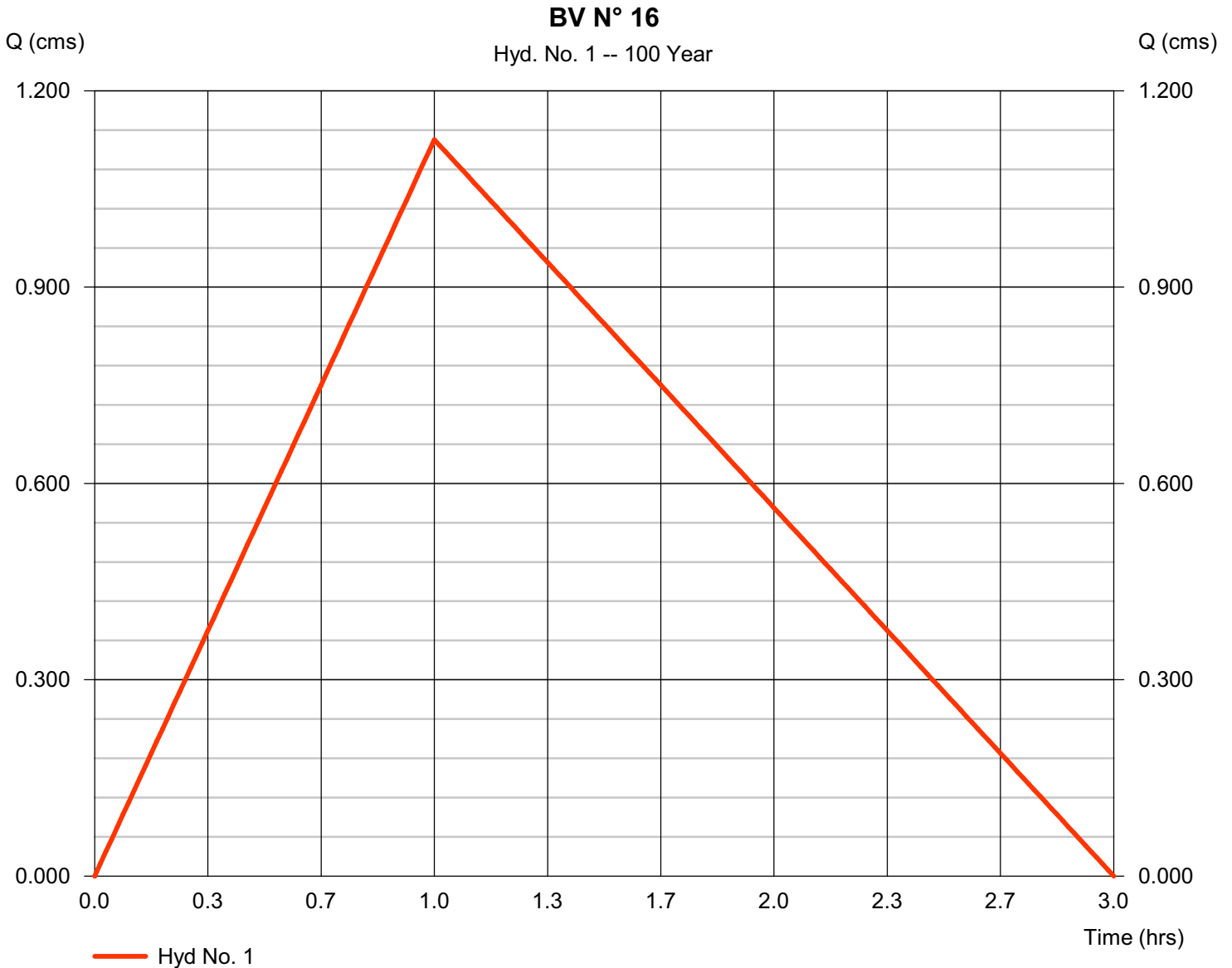
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## Hyd. No. 1

BV N° 16

Hydrograph type	= Rational	Peak discharge	= 1.126 cms
Storm frequency	= 100 yrs	Time to peak	= 1.00 hrs
Time interval	= 1 min	Hyd. volume	= 6 077.8 cum
Drainage area	= 53.900 hectare	Runoff coeff.	= 0.2
Intensity	= 37.900 mm/hr	Tc by User	= 60.00 min
IDF Curve	= IDF_ALSACE.IDF	Asc/Rec limb fact	= 1/2



# Hydrograph Report

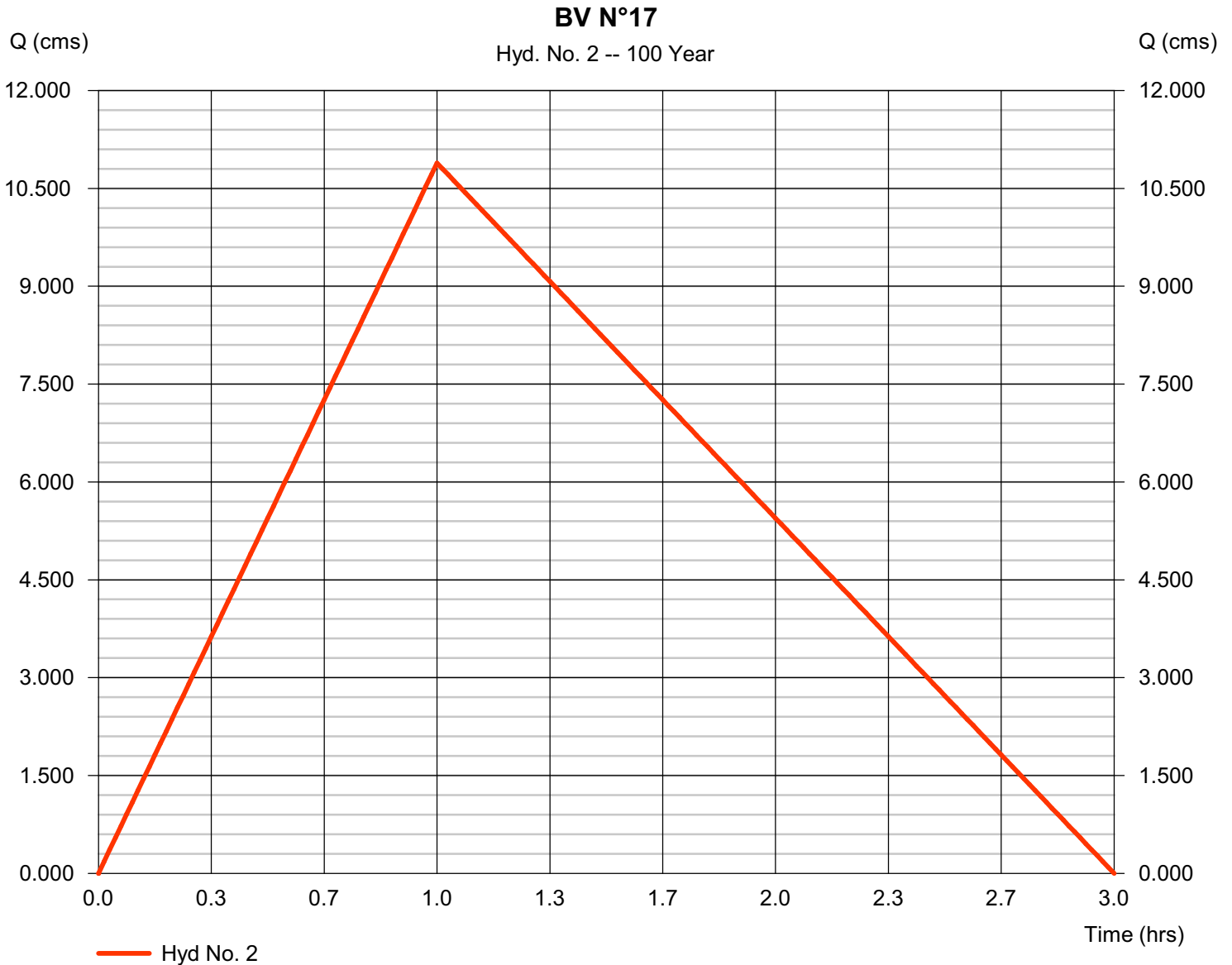
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## Hyd. No. 2

BV N°17

Hydrograph type	= Rational	Peak discharge	= 10.89 cms
Storm frequency	= 100 yrs	Time to peak	= 1.00 hrs
Time interval	= 1 min	Hyd. volume	= 58 804.8 cum
Drainage area	= 417.200 hectare	Runoff coeff.	= 0.25
Intensity	= 37.900 mm/hr	Tc by User	= 60.00 min
IDF Curve	= IDF_ALSACE.IDF	Asc/Rec limb fact	= 1/2



# Hydrograph Report

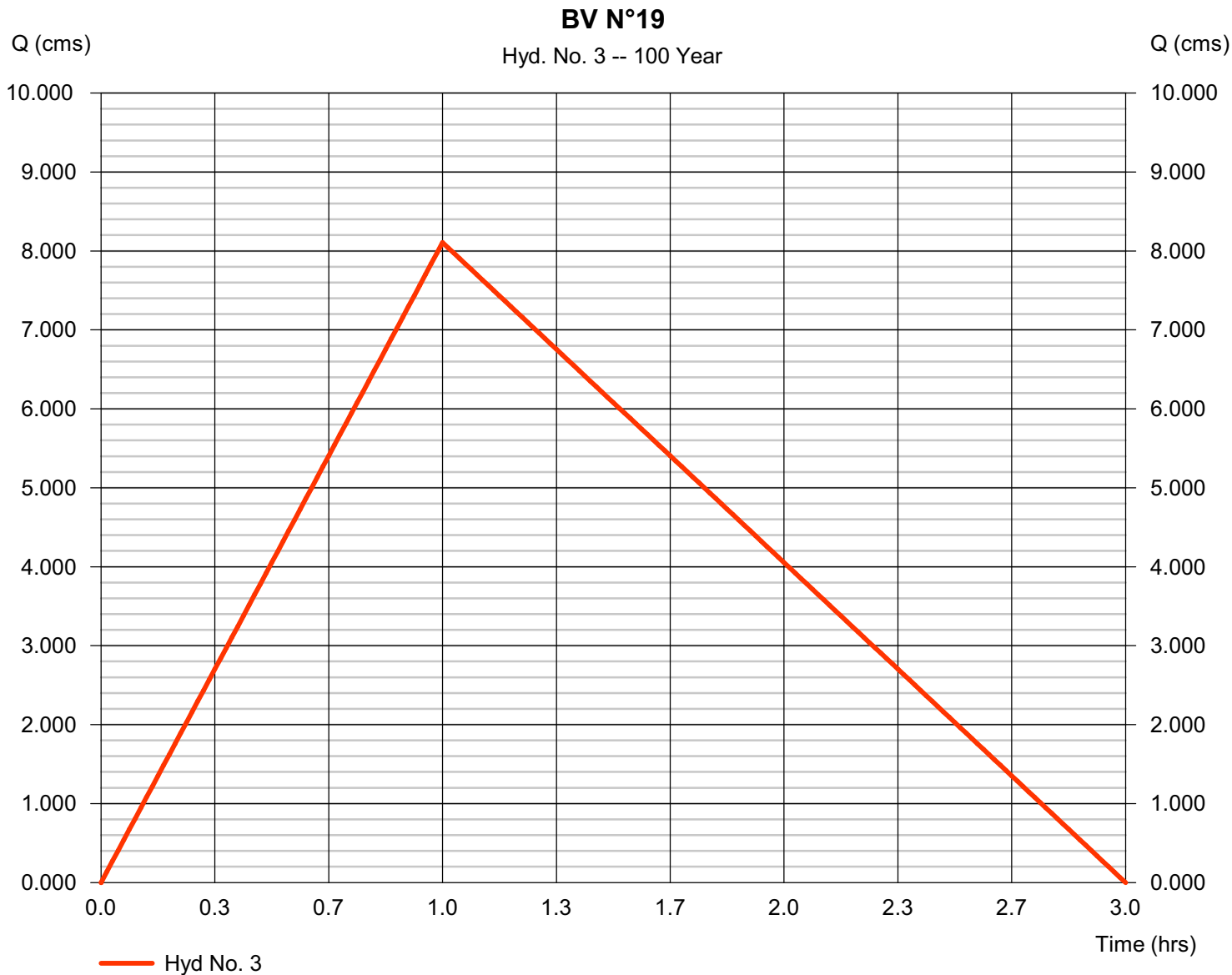
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## Hyd. No. 3

BV N°19

Hydrograph type	= Rational	Peak discharge	= 8.106 cms
Storm frequency	= 100 yrs	Time to peak	= 1.00 hrs
Time interval	= 1 min	Hyd. volume	= 43 773.8 cum
Drainage area	= 323.500 hectare	Runoff coeff.	= 0.24
Intensity	= 37.900 mm/hr	Tc by User	= 60.00 min
IDF Curve	= IDF_ALSACE.IDF	Asc/Rec limb fact	= 1/2



# Hydrograph Report

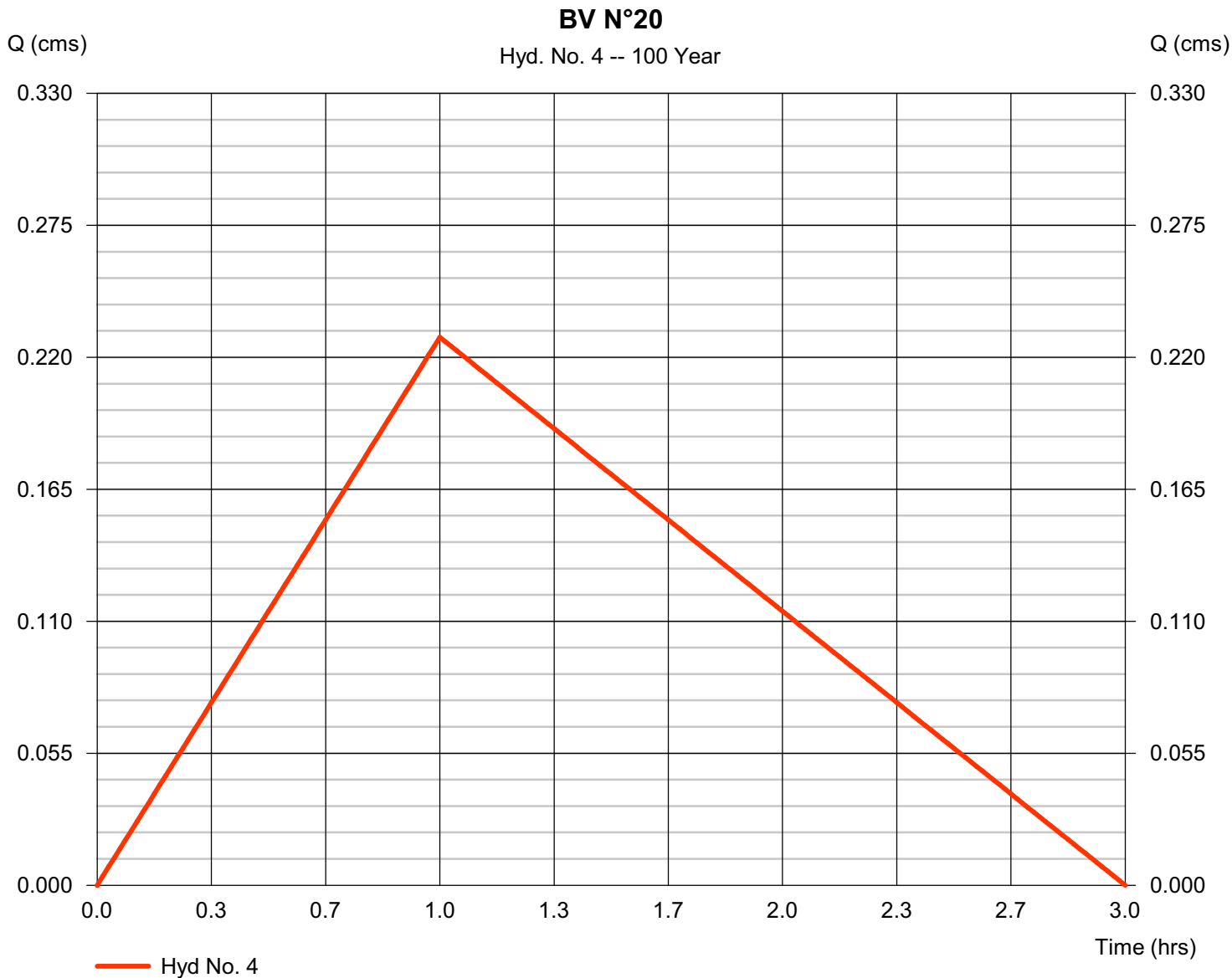
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## Hyd. No. 4

BV N°20

Hydrograph type	= Rational	Peak discharge	= 0.228 cms
Storm frequency	= 100 yrs	Time to peak	= 1.00 hrs
Time interval	= 1 min	Hyd. volume	= 1 233.0 cum
Drainage area	= 8.100 hectare	Runoff coeff.	= 0.27
Intensity	= 37.900 mm/hr	Tc by User	= 60.00 min
IDF Curve	= IDF_ALSACE.IDF	Asc/Rec limb fact	= 1/2

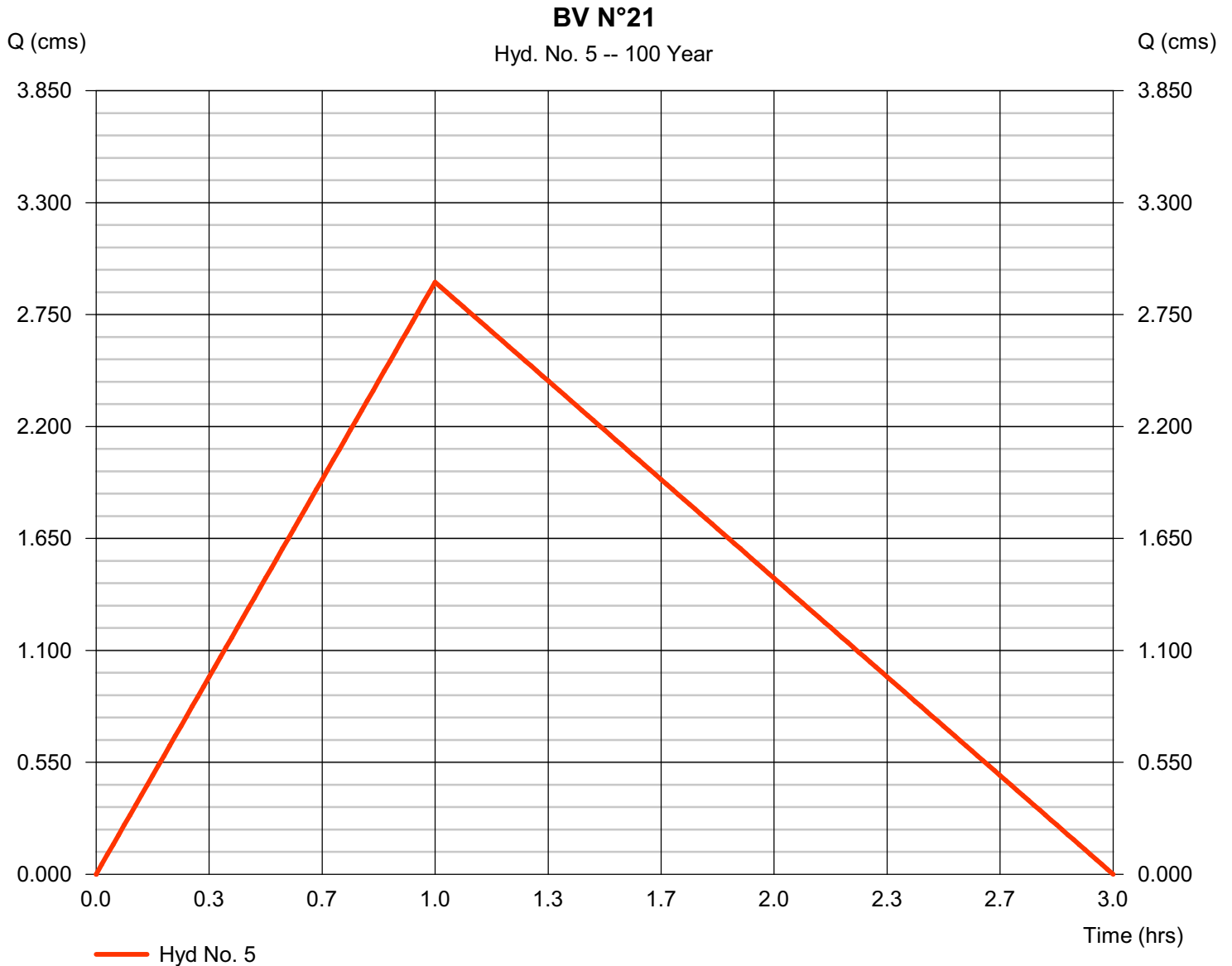


# Hydrograph Report

## Hyd. No. 5

BV N°21

Hydrograph type	= Rational	Peak discharge	= 2.909 cms
Storm frequency	= 100 yrs	Time to peak	= 1.00 hrs
Time interval	= 1 min	Hyd. volume	= 15 709.9 cum
Drainage area	= 116.100 hectare	Runoff coeff.	= 0.24
Intensity	= 37.900 mm/hr	Tc by User	= 60.00 min
IDF Curve	= IDF_ALSACE.IDF	Asc/Rec limb fact	= 1/2



# Hydrograph Report

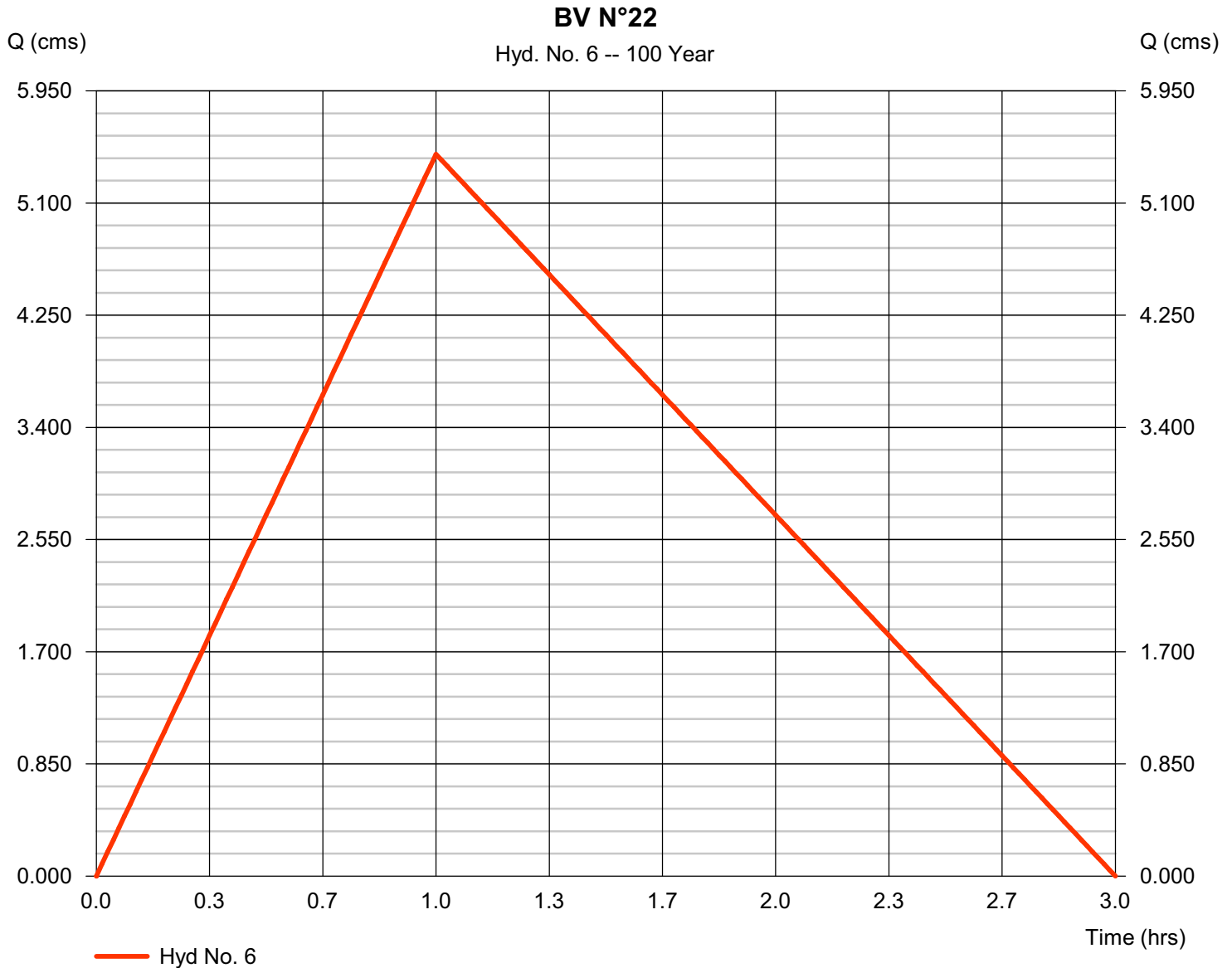
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## Hyd. No. 6

BV N°22

Hydrograph type	= Rational	Peak discharge	= 5.470 cms
Storm frequency	= 100 yrs	Time to peak	= 1.00 hrs
Time interval	= 1 min	Hyd. volume	= 29 537.7 cum
Drainage area	= 201.500 hectare	Runoff coeff.	= 0.26
Intensity	= 37.900 mm/hr	Tc by User	= 60.00 min
IDF Curve	= IDF_ALSACE.IDF	Asc/Rec limb fact	= 1/2



# Hydrograph Report

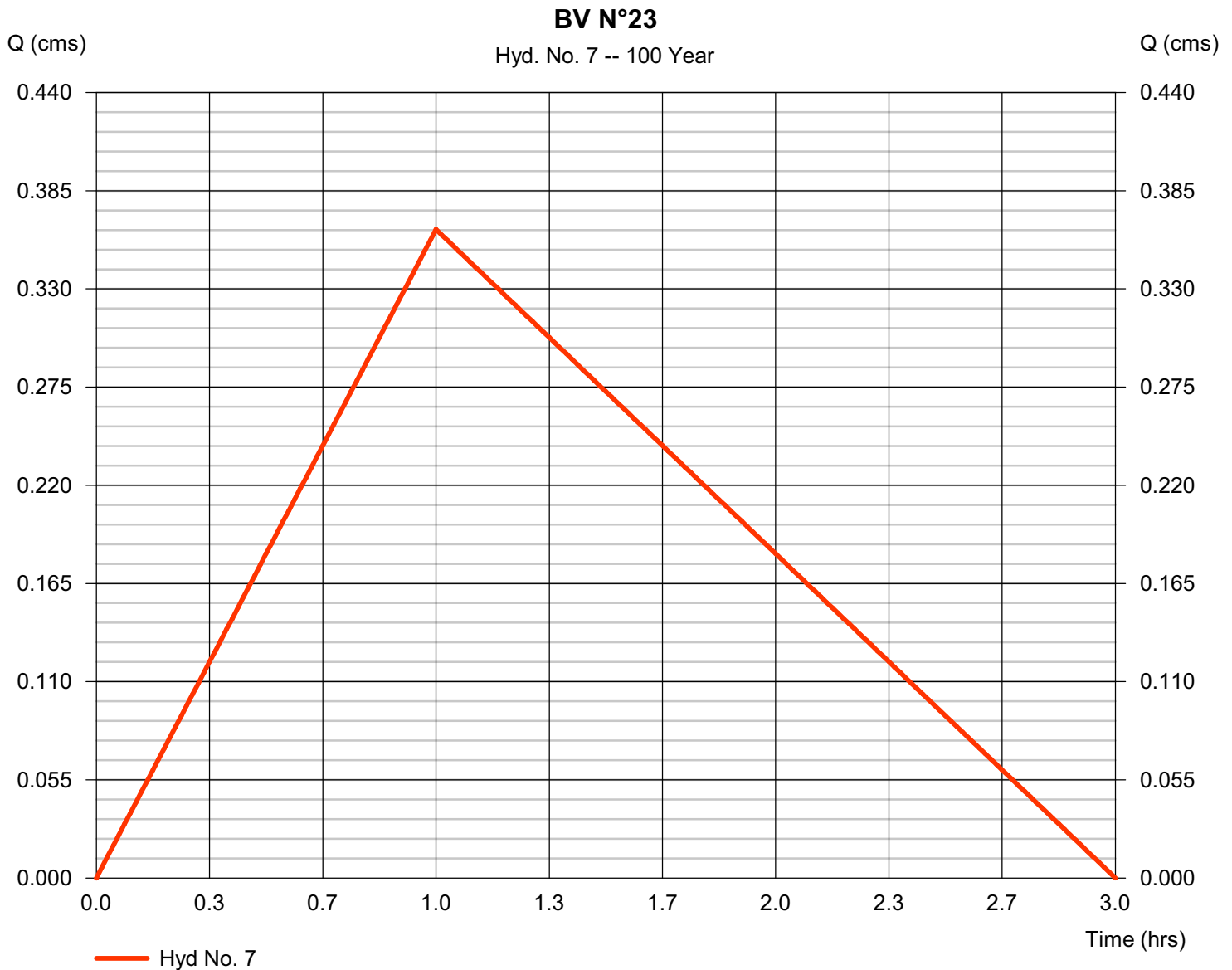
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## Hyd. No. 7

BV N°23

Hydrograph type	= Rational	Peak discharge	= 0.363 cms
Storm frequency	= 100 yrs	Time to peak	= 1.00 hrs
Time interval	= 1 min	Hyd. volume	= 1 962.0 cum
Drainage area	= 14.500 hectare	Runoff coeff.	= 0.24
Intensity	= 37.900 mm/hr	Tc by User	= 60.00 min
IDF Curve	= IDF_ALSACE.IDF	Asc/Rec limb fact	= 1/2





# Hydrograph Report

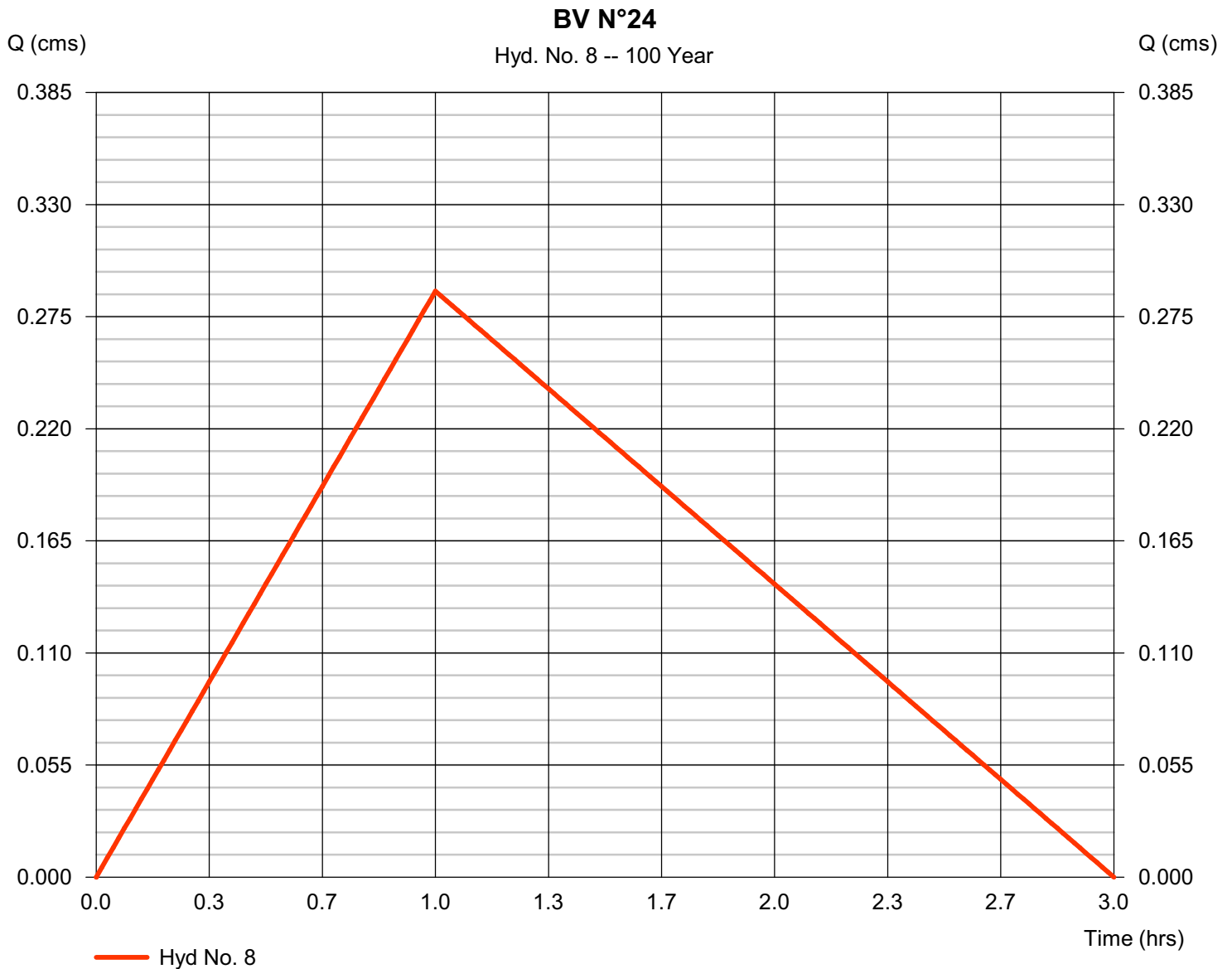
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## Hyd. No. 8

BV N°24

Hydrograph type	= Rational	Peak discharge	= 0.288 cms
Storm frequency	= 100 yrs	Time to peak	= 1.00 hrs
Time interval	= 1 min	Hyd. volume	= 1 552.7 cum
Drainage area	= 10.200 hectare	Runoff coeff.	= 0.27
Intensity	= 37.900 mm/hr	Tc by User	= 60.00 min
IDF Curve	= IDF_ALSACE.IDF	Asc/Rec limb fact	= 1/2



# Hydrograph Report

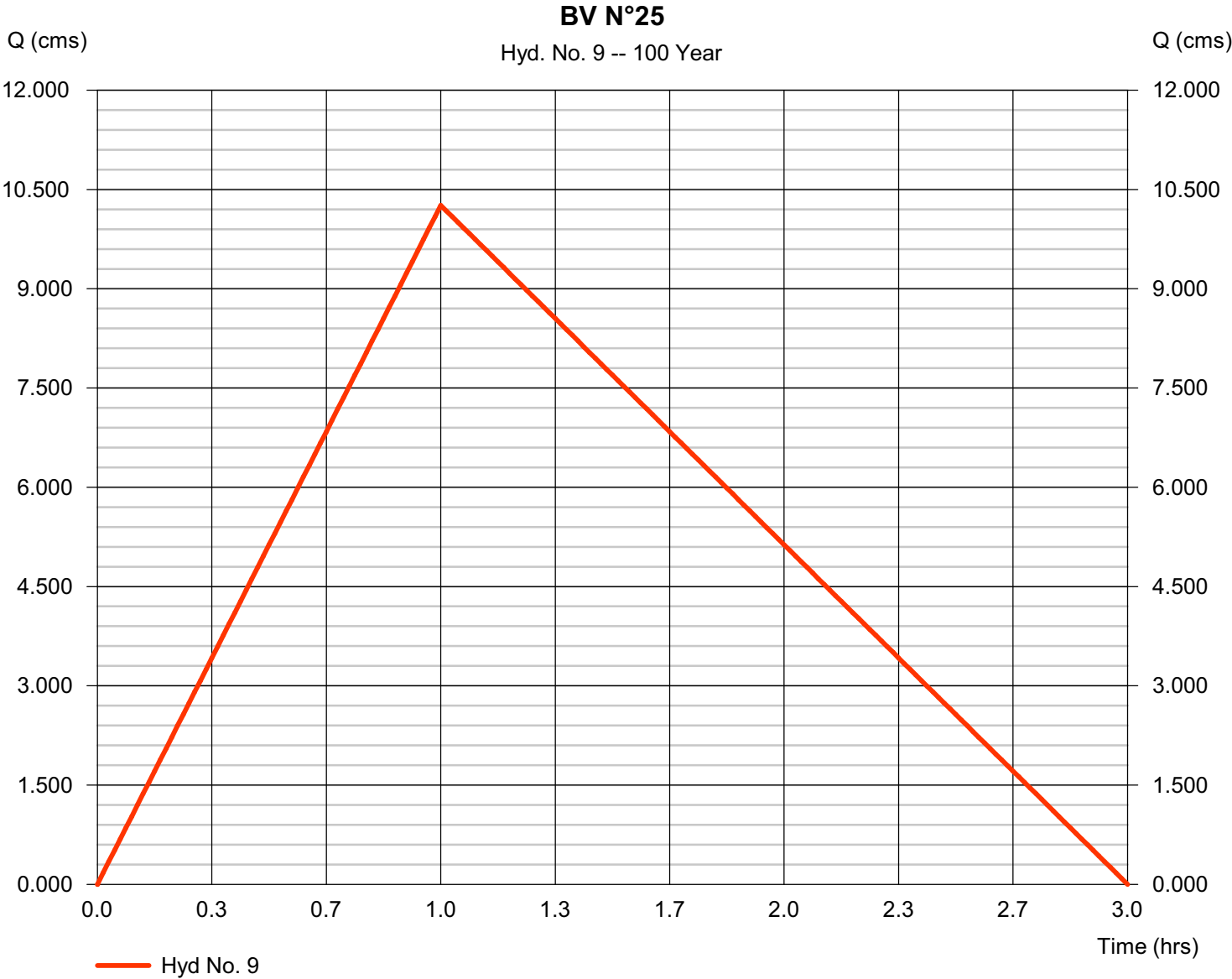
Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2010 by Autodesk, Inc. v9.25

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## Hyd. No. 9

BV N°25

Hydrograph type	= Rational	Peak discharge	= 10.26 cms
Storm frequency	= 100 yrs	Time to peak	= 1.00 hrs
Time interval	= 1 min	Hyd. volume	= 55 410.7 cum
Drainage area	= 409.500 hectare	Runoff coeff.	= 0.24
Intensity	= 37.900 mm/hr	Tc by User	= 60.00 min
IDF Curve	= IDF_ALSACE.IDF	Asc/Rec limb fact	= 1/2

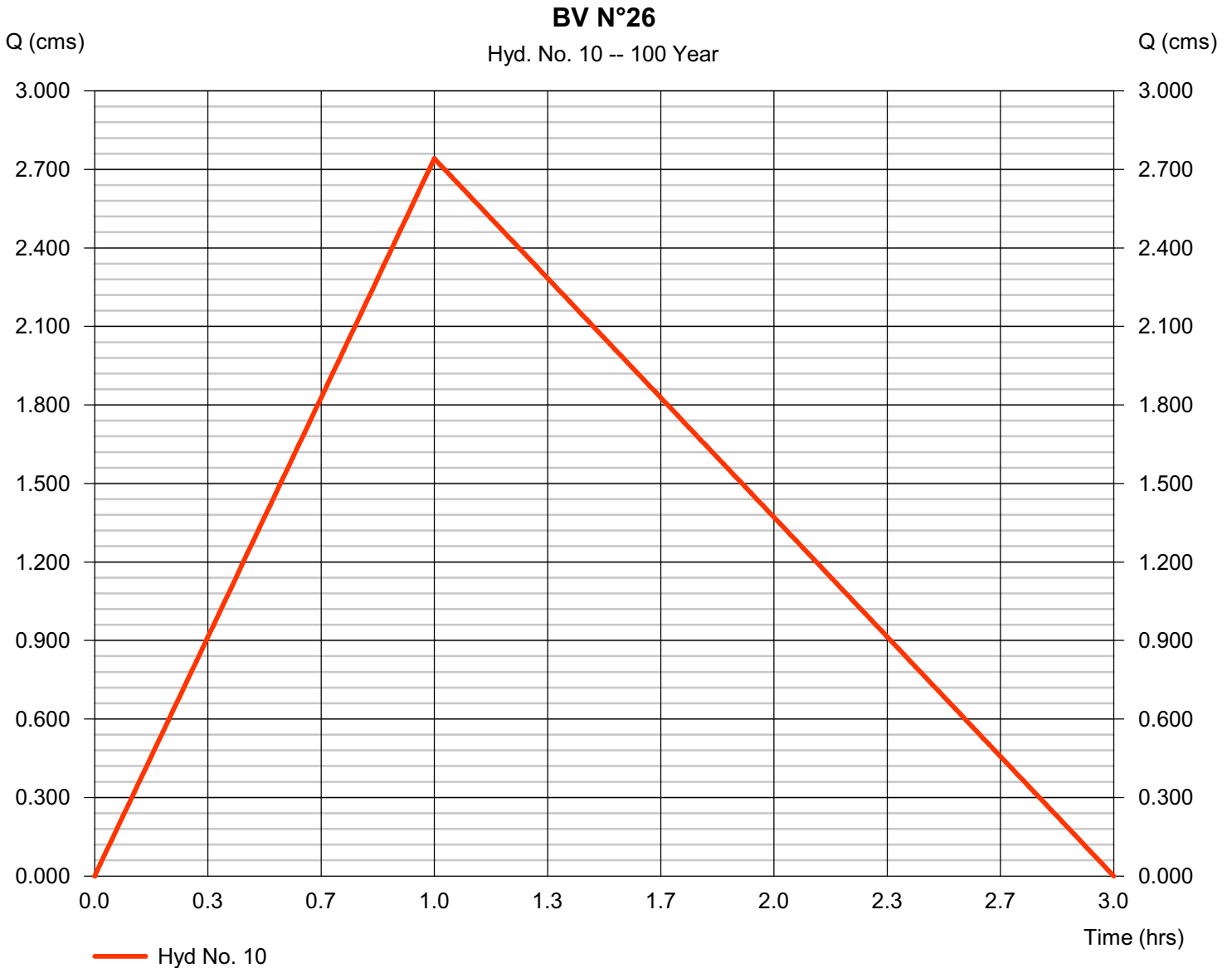


# Hydrograph Report

## Hyd. No. 10

BV N°26

Hydrograph type	= Rational	Peak discharge	= 2.741 cms
Storm frequency	= 100 yrs	Time to peak	= 1.00 hrs
Time interval	= 1 min	Hyd. volume	= 14 803.3 cum
Drainage area	= 109.400 hectare	Runoff coeff.	= 0.24
Intensity	= 37.900 mm/hr	Tc by User	= 60.00 min
IDF Curve	= IDF_ALSACE.IDF	Asc/Rec limb fact	= 1/2



# Hydrograph Report

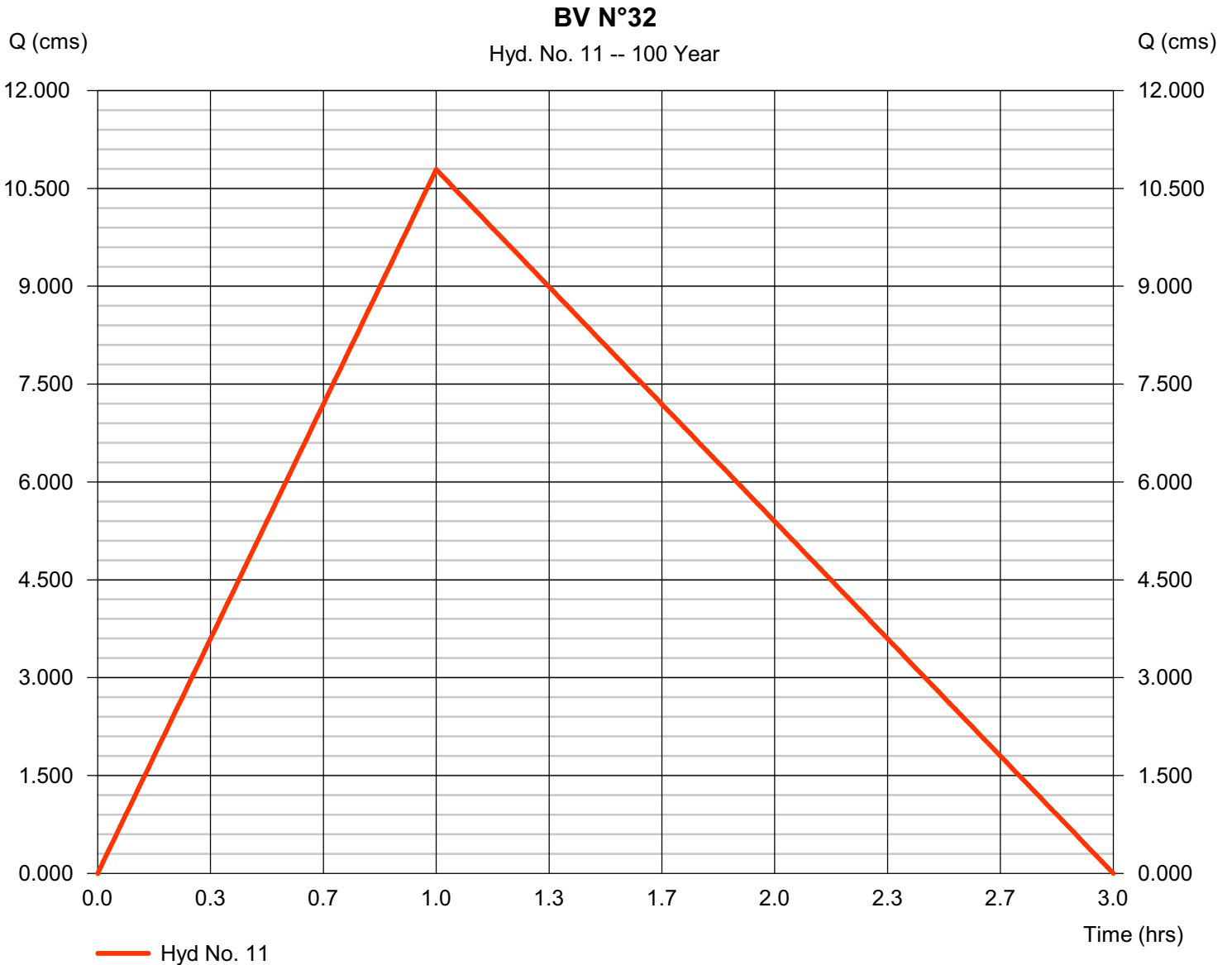
Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2010 by Autodesk, Inc. v9.25

mardi, janv 19, 2010

## Hyd. No. 11

BV N°32

Hydrograph type	= Rational	Peak discharge	= 10.79 cms
Storm frequency	= 100 yrs	Time to peak	= 1.00 hrs
Time interval	= 1 min	Hyd. volume	= 58 272.6 cum
Drainage area	= 469.800 hectare	Runoff coeff.	= 0.22
Intensity	= 37.900 mm/hr	Tc by User	= 60.00 min
IDF Curve	= IDF_ALSACE.IDF	Asc/Rec limb fact	= 1/2



# Hydrograph Report

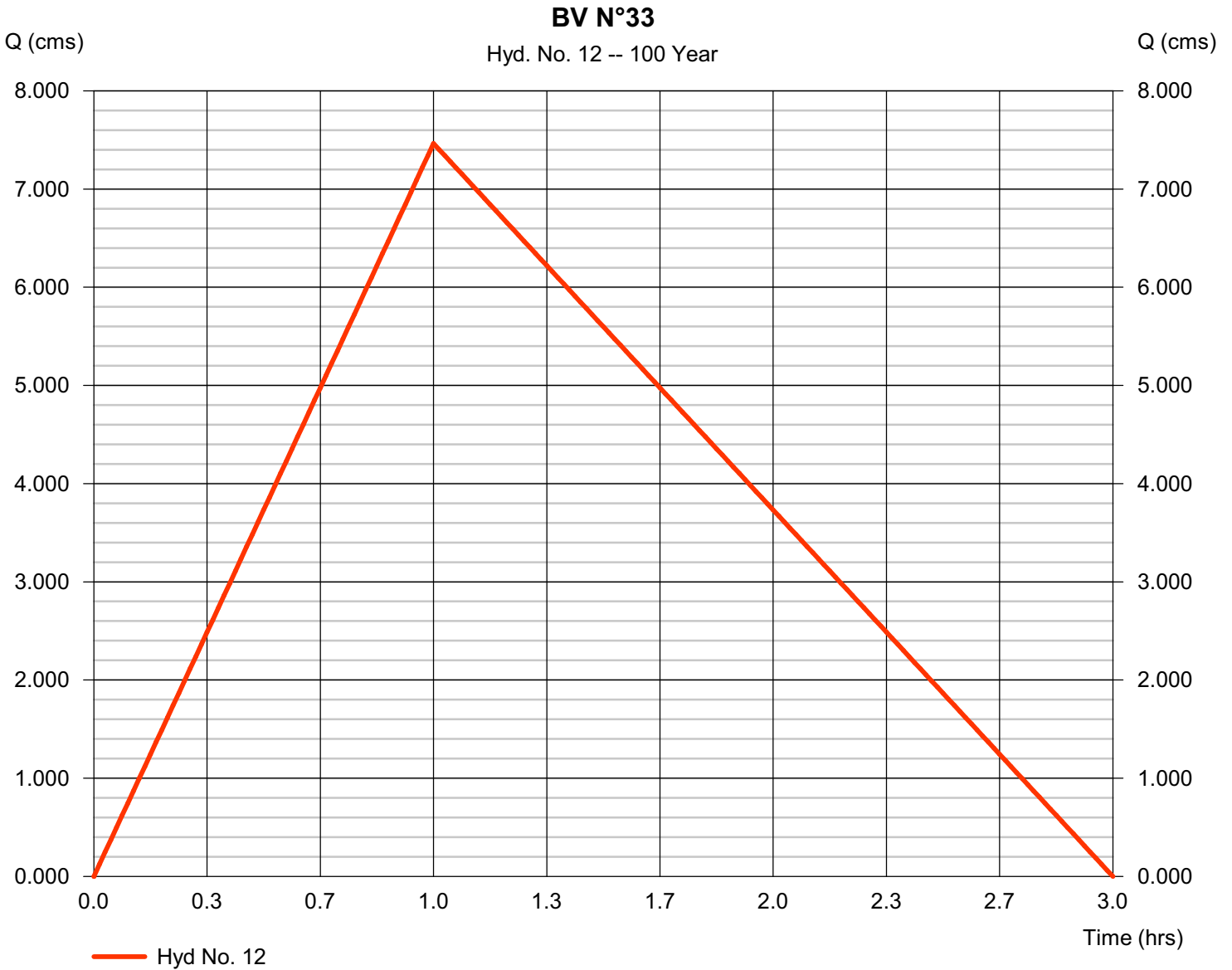
Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2010 by Autodesk, Inc. v9.25

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## Hyd. No. 12

BV N°33

Hydrograph type	= Rational	Peak discharge	= 7.465 cms
Storm frequency	= 100 yrs	Time to peak	= 1.00 hrs
Time interval	= 1 min	Hyd. volume	= 40 312.0 cum
Drainage area	= 357.500 hectare	Runoff coeff.	= 0.2
Intensity	= 37.900 mm/hr	Tc by User	= 60.00 min
IDF Curve	= IDF_ALSACE.IDF	Asc/Rec limb fact	= 1/2



# Hydrograph Report

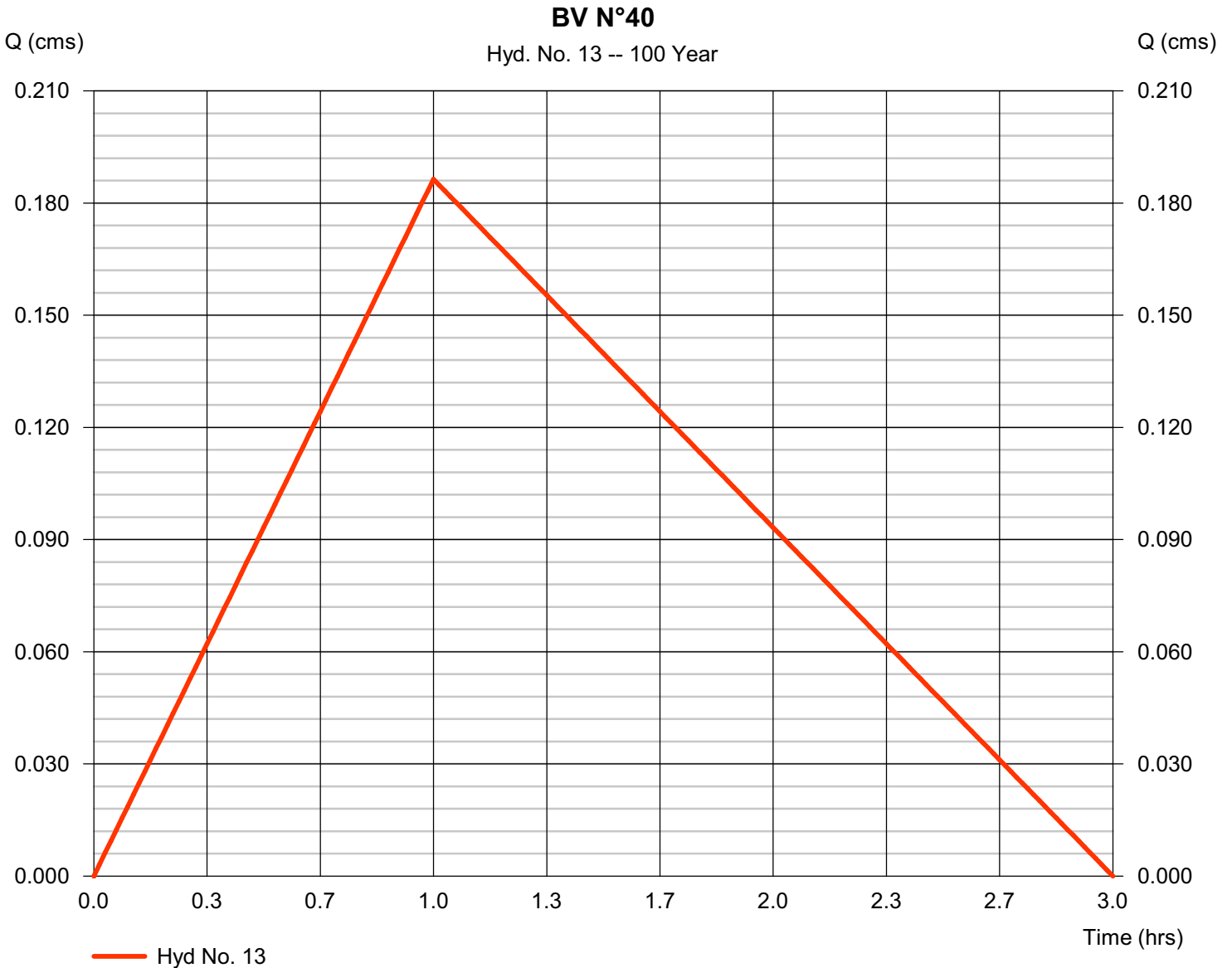
Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2010 by Autodesk, Inc. v9.25

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## Hyd. No. 13

BV N°40

Hydrograph type	= Rational	Peak discharge	= 0.186 cms
Storm frequency	= 100 yrs	Time to peak	= 1.00 hrs
Time interval	= 1 min	Hyd. volume	= 1 006.4 cum
Drainage area	= 10.500 hectare	Runoff coeff.	= 0.17
Intensity	= 37.900 mm/hr	Tc by User	= 60.00 min
IDF Curve	= IDF_ALSACE.IDF	Asc/Rec limb fact	= 1/2



# Hydrograph Report

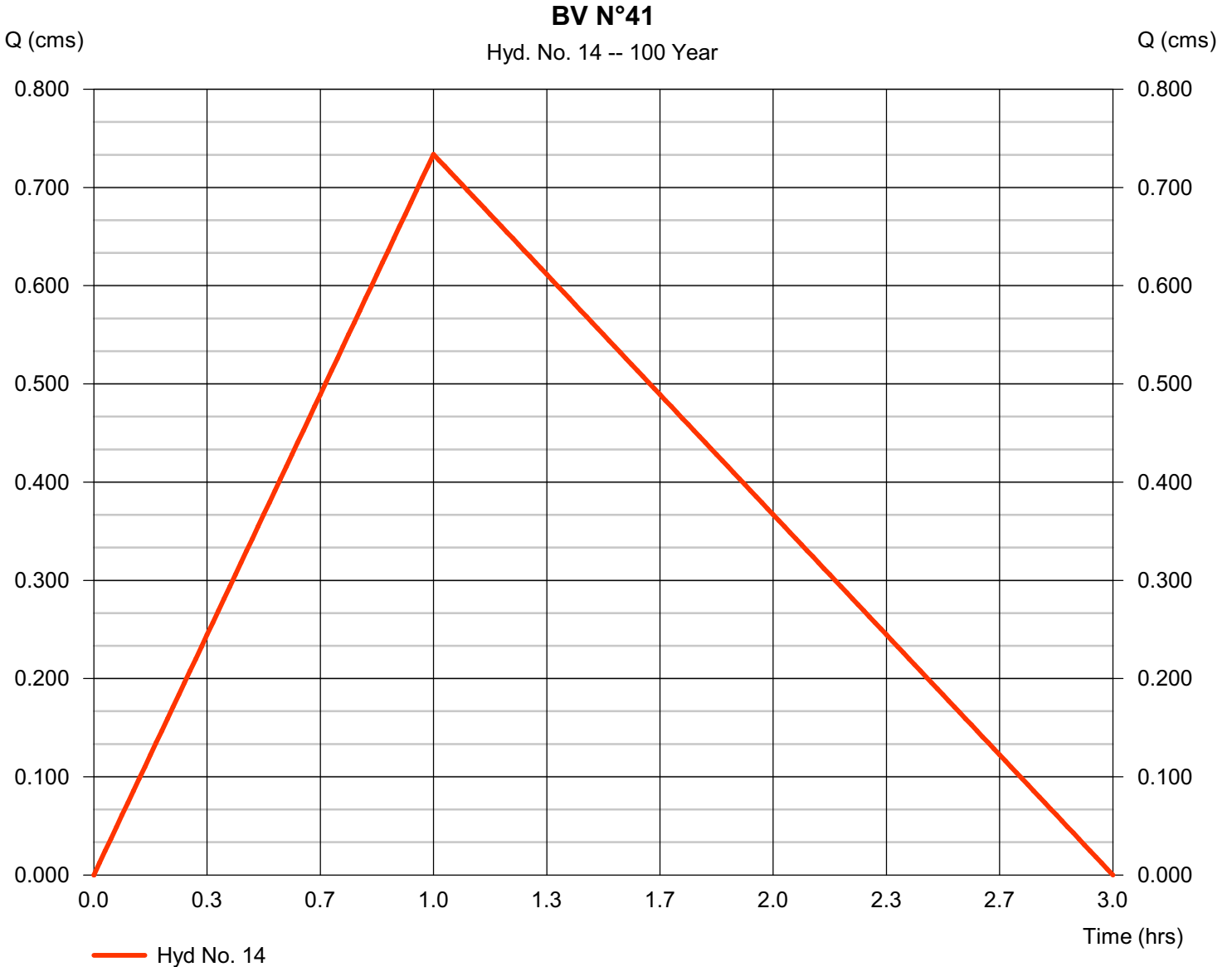
Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2010 by Autodesk, Inc. v9.25

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## Hyd. No. 14

BV N°41

Hydrograph type	= Rational	Peak discharge	= 0.734 cms
Storm frequency	= 100 yrs	Time to peak	= 1.00 hrs
Time interval	= 1 min	Hyd. volume	= 3 962.4 cum
Drainage area	= 25.100 hectare	Runoff coeff.	= 0.28
Intensity	= 37.900 mm/hr	Tc by User	= 60.00 min
IDF Curve	= IDF_ALSACE.IDF	Asc/Rec limb fact	= 1/2



# Hydrograph Report

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## Hyd. No. 15

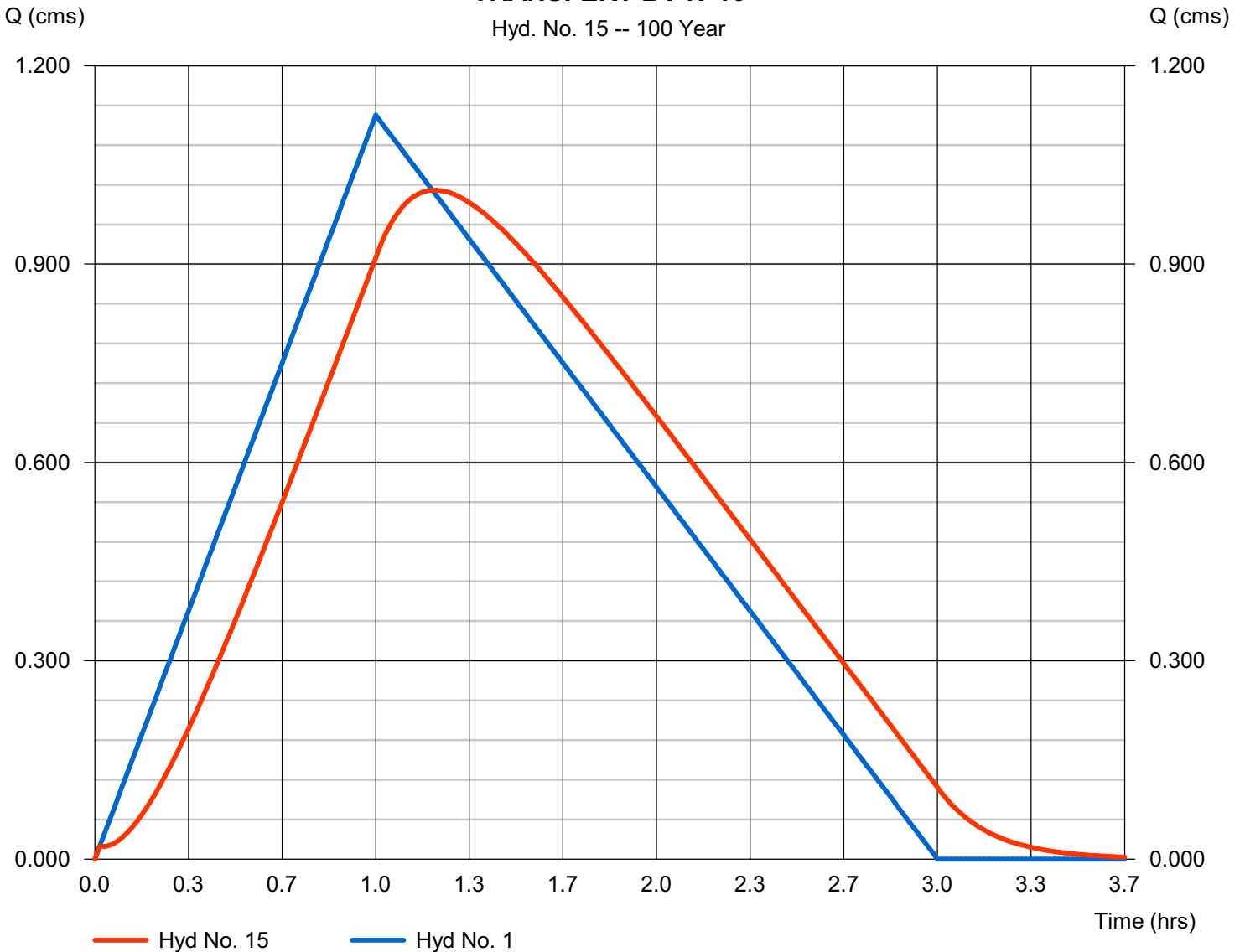
TRANSFERT BV N°16

Hydrograph type	= Reach	Peak discharge	= 1.012 cms
Storm frequency	= 100 yrs	Time to peak	= 1.22 hrs
Time interval	= 1 min	Hyd. volume	= 6 090.7 cum
Inflow hyd. No.	= 1 - BV N° 16	Section type	= Rectangular
Reach length	= 1516.0 m	Channel slope	= 1.7 %
Manning's n	= 0.025	Bottom width	= 2.0 m
Side slope	= 0.0:1	Max. depth	= 4.0 m
Rating curve x	= 2.216	Rating curve m	= 1.426
Ave. velocity	= 1.60 m/s	Routing coeff.	= 0.0864

Modified Att-Kin routing method used.

### TRANSFERT BV N°16

Hyd. No. 15 -- 100 Year





# Hydrograph Report

## Hyd. No. 16

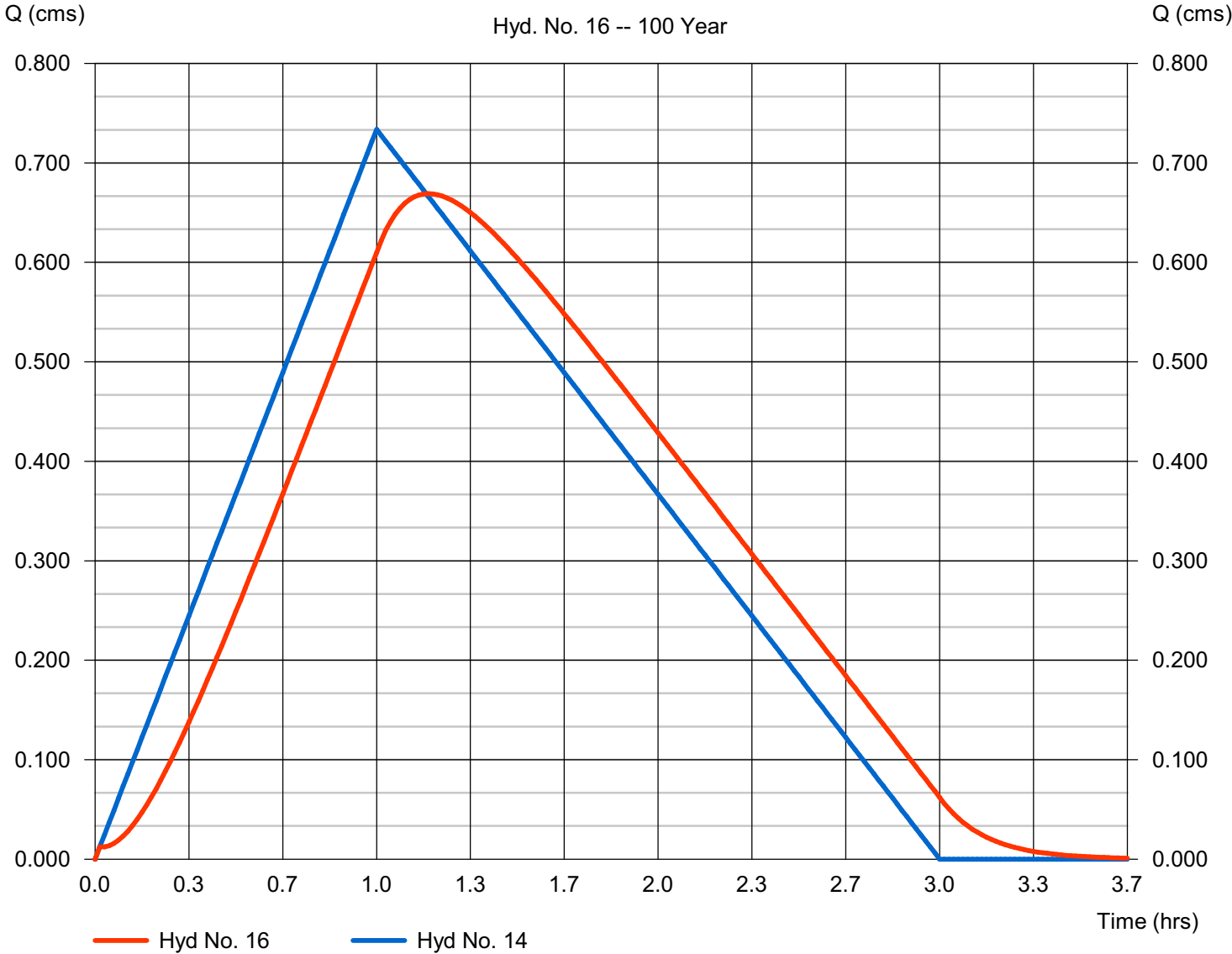
### TRANSFERT BV N°41

Hydrograph type	= Reach	Peak discharge	= 0.669 cms
Storm frequency	= 100 yrs	Time to peak	= 1.18 hrs
Time interval	= 1 min	Hyd. volume	= 3 969.7 cum
Inflow hyd. No.	= 14 - BV N°41	Section type	= Rectangular
Reach length	= 1419.0 m	Channel slope	= 3.0 %
Manning's n	= 0.025	Bottom width	= 2.0 m
Side slope	= 0.0:1	Max. depth	= 4.0 m
Rating curve x	= 2.943	Rating curve m	= 1.426
Ave. velocity	= 1.72 m/s	Routing coeff.	= 0.0985

Modified Att-Kin routing method used.

### TRANSFERT BV N°41

Hyd. No. 16 -- 100 Year



# Hydrograph Report

## Hyd. No. 17

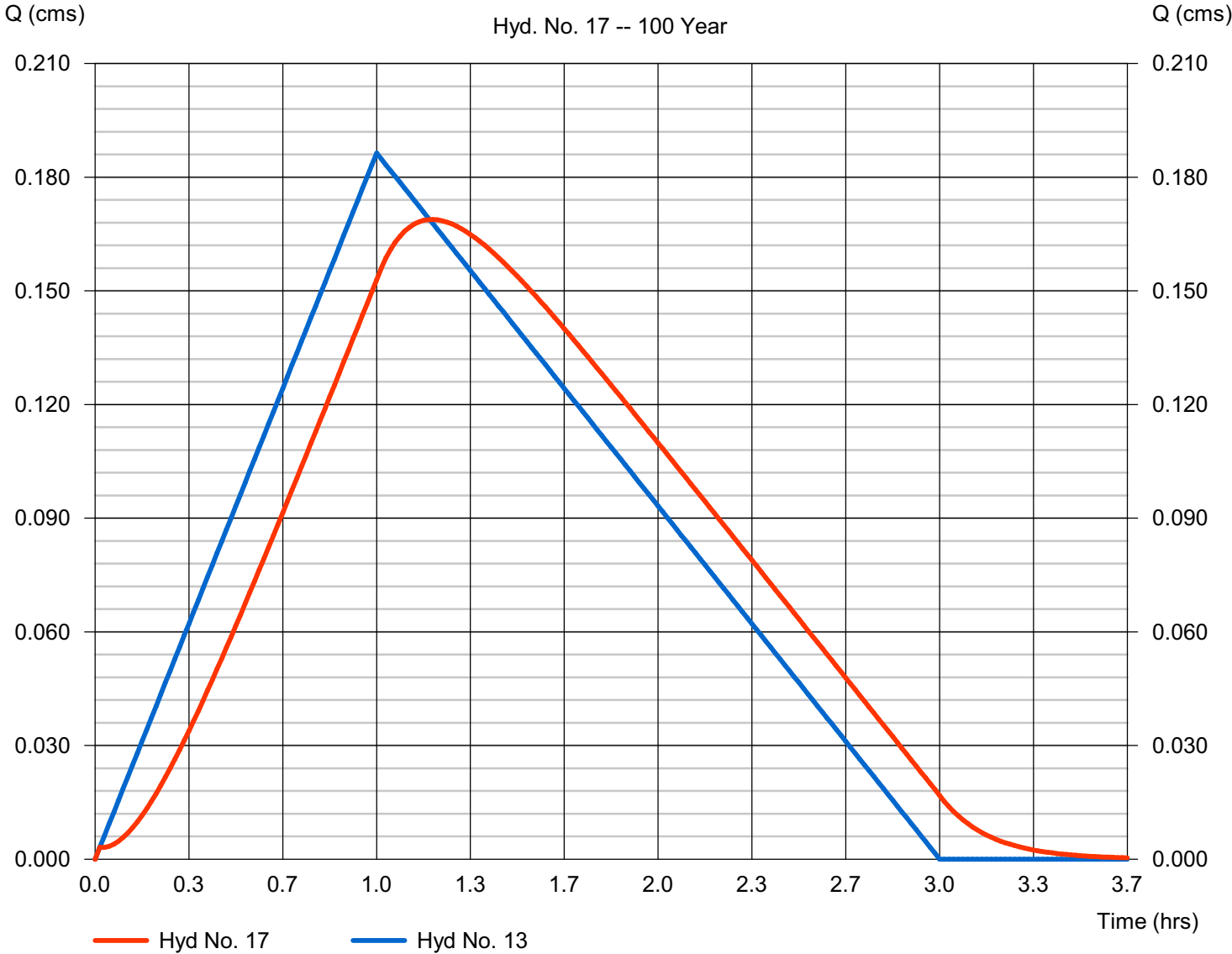
### TRANSFERT BV N°40

Hydrograph type	= Reach	Peak discharge	= 0.169 cms
Storm frequency	= 100 yrs	Time to peak	= 1.20 hrs
Time interval	= 1 min	Hyd. volume	= 1 008.2 cum
Inflow hyd. No.	= 13 - BV N°40	Section type	= Rectangular
Reach length	= 1104.0 m	Channel slope	= 3.9 %
Manning's n	= 0.025	Bottom width	= 2.0 m
Side slope	= 0.0:1	Max. depth	= 4.0 m
Rating curve x	= 3.356	Rating curve m	= 1.426
Ave. velocity	= 1.25 m/s	Routing coeff.	= 0.0925

Modified Att-Kin routing method used.

### TRANSFERT BV N°40

Hyd. No. 17 -- 100 Year



# Hydrograph Report

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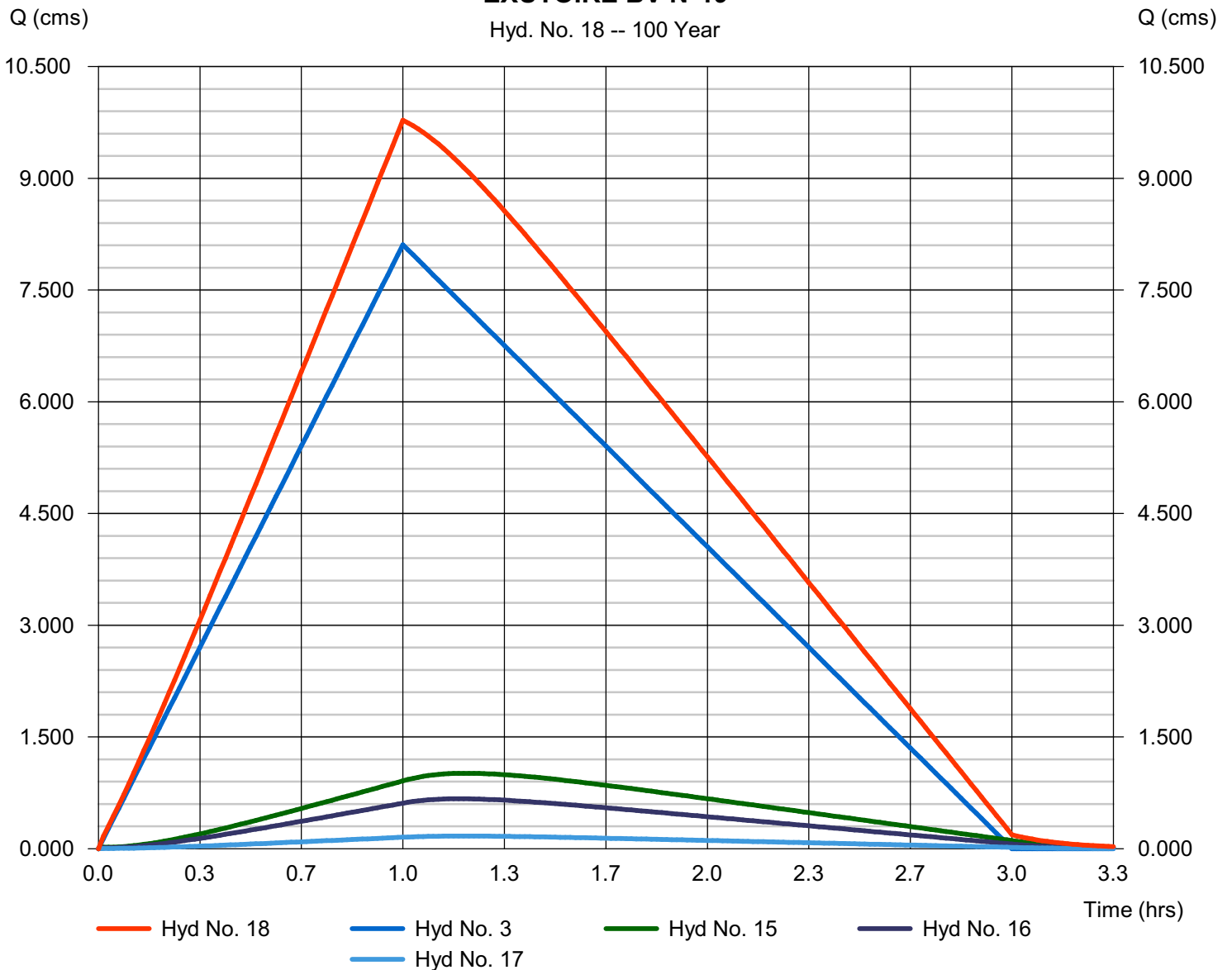
## Hyd. No. 18

EXUTOIRE BV N°19

Hydrograph type	= Combine	Peak discharge	= 9.779 cms
Storm frequency	= 100 yrs	Time to peak	= 1.00 hrs
Time interval	= 1 min	Hyd. volume	= 54 842.4 cum
Inflow hyds.	= 3, 15, 16, 17	Contrib. drain. area	= 323.500 hectare

### EXUTOIRE BV N°19

Hyd. No. 18 -- 100 Year



# Hydrograph Report

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## Hyd. No. 19

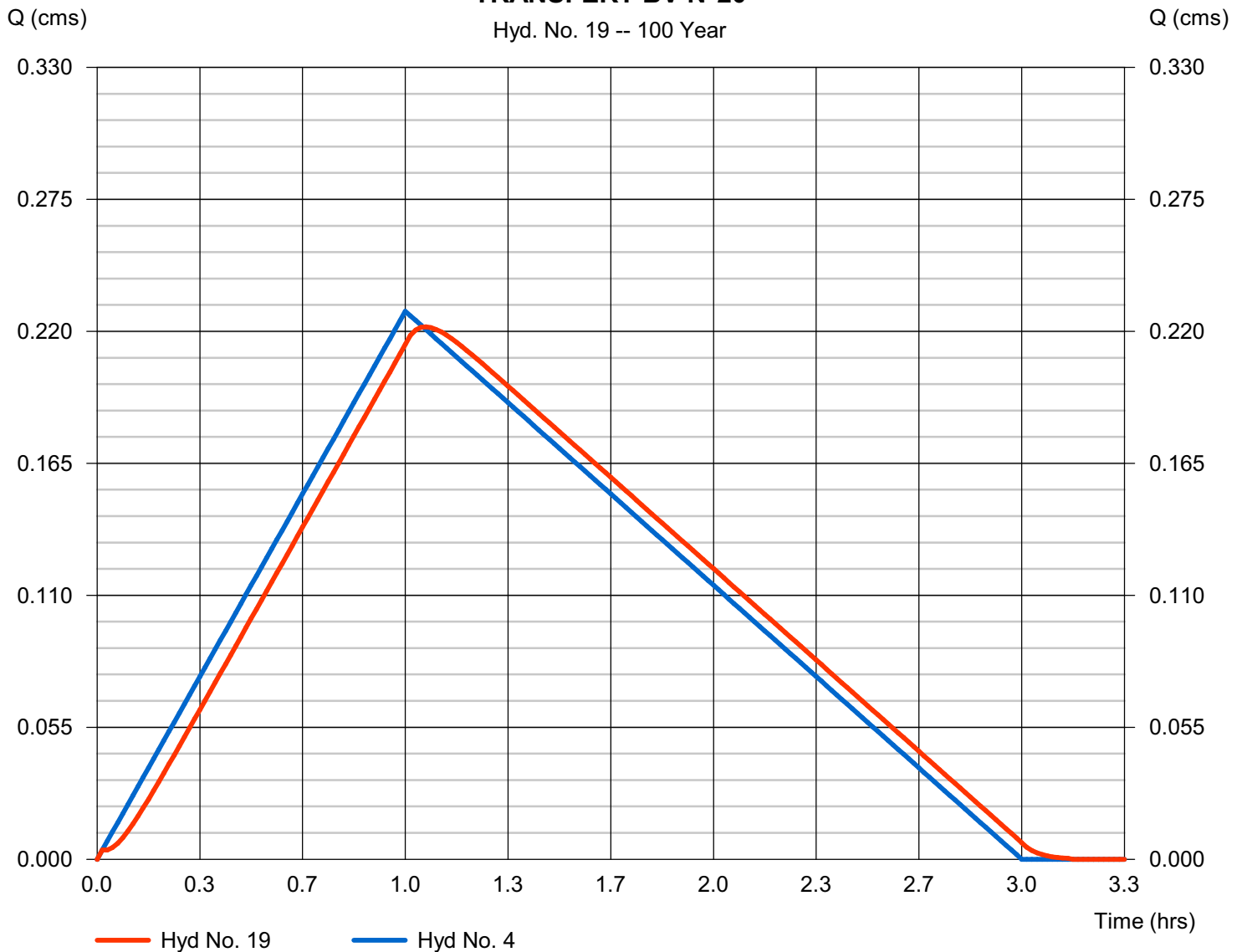
### TRANSFERT BV N°20

Hydrograph type	= Reach	Peak discharge	= 0.222 cms
Storm frequency	= 100 yrs	Time to peak	= 1.07 hrs
Time interval	= 1 min	Hyd. volume	= 1 233.8 cum
Inflow hyd. No.	= 4 - BV N°20	Section type	= Rectangular
Reach length	= 427.0 m	Channel slope	= 1.4 %
Manning's n	= 0.011	Bottom width	= 3.5 m
Side slope	= 0.0:1	Max. depth	= 0.1 m
Rating curve x	= 3.146	Rating curve m	= 1.639
Ave. velocity	= 1.38 m/s	Routing coeff.	= 0.2750

Modified Att-Kin routing method used.

### TRANSFERT BV N°20

Hyd. No. 19 -- 100 Year



# Hydrograph Report

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## Hyd. No. 20

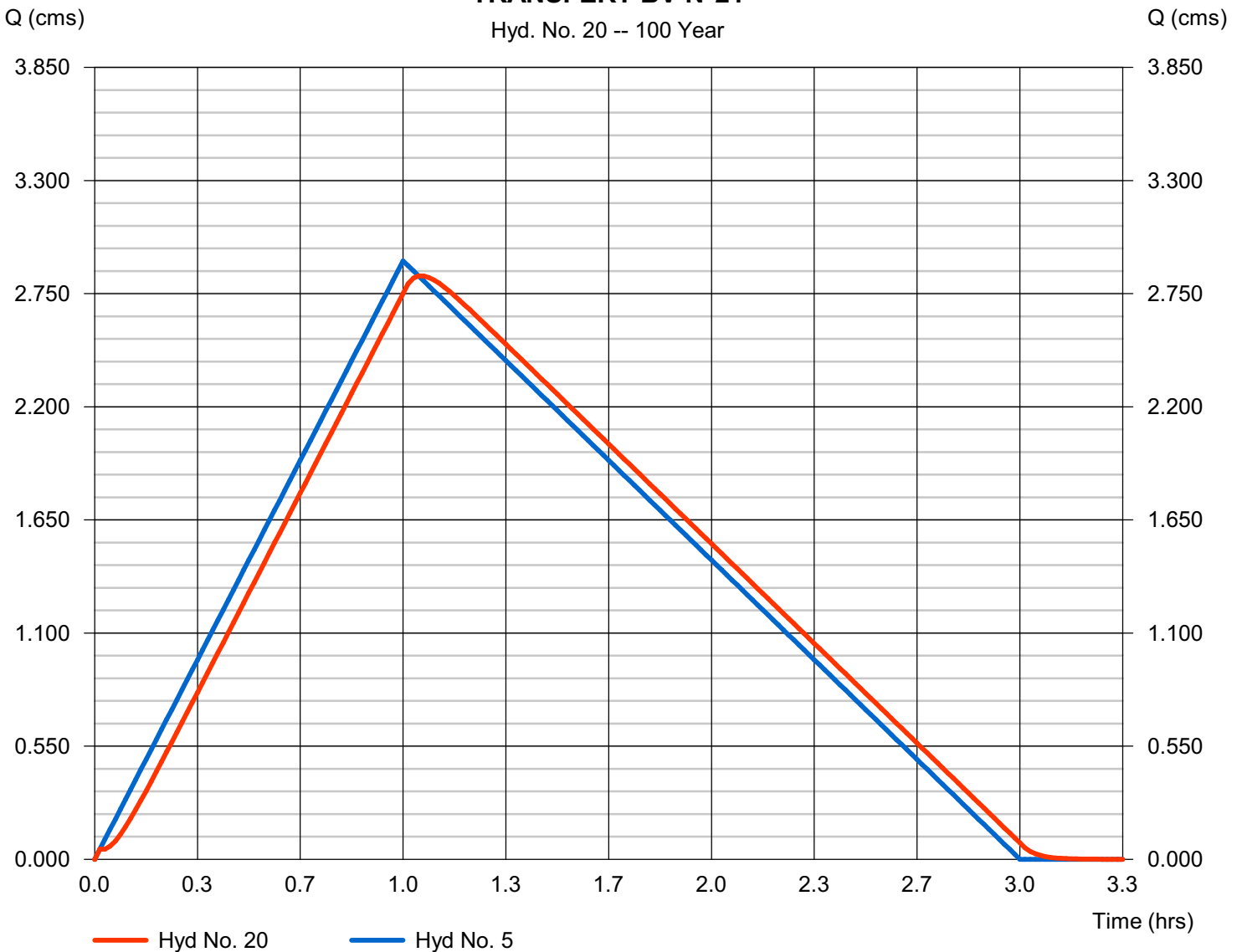
### TRANSFERT BV N°21

Hydrograph type	= Reach	Peak discharge	= 2.836 cms
Storm frequency	= 100 yrs	Time to peak	= 1.07 hrs
Time interval	= 1 min	Hyd. volume	= 15 719.4 cum
Inflow hyd. No.	= 5 - BV N°21	Section type	= Rectangular
Reach length	= 460.0 m	Channel slope	= 1.3 %
Manning's n	= 0.025	Bottom width	= 2.0 m
Side slope	= 0.0:1	Max. depth	= 4.0 m
Rating curve x	= 1.938	Rating curve m	= 1.426
Ave. velocity	= 1.93 m/s	Routing coeff.	= 0.3049

Modified Att-Kin routing method used.

### TRANSFERT BV N°21

Hyd. No. 20 -- 100 Year



# Hydrograph Report

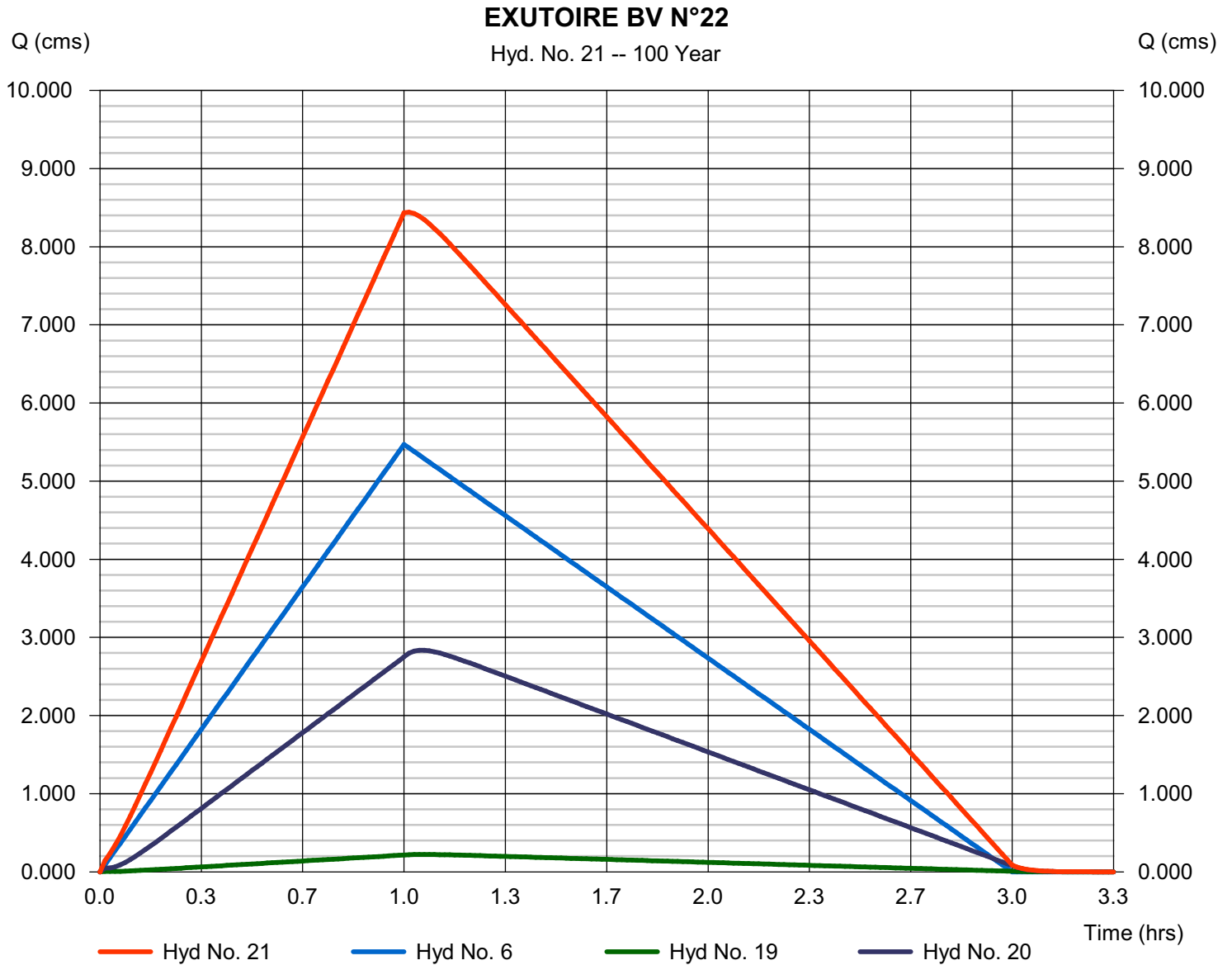
Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2010 by Autodesk, Inc. v9.25

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## Hyd. No. 21

EXUTOIRE BV N°22

Hydrograph type	= Combine	Peak discharge	= 8.441 cms
Storm frequency	= 100 yrs	Time to peak	= 1.02 hrs
Time interval	= 1 min	Hyd. volume	= 46 490.9 cum
Inflow hyds.	= 6, 19, 20	Contrib. drain. area	= 201.500 hectare



# Hydrograph Report

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## Hyd. No. 22

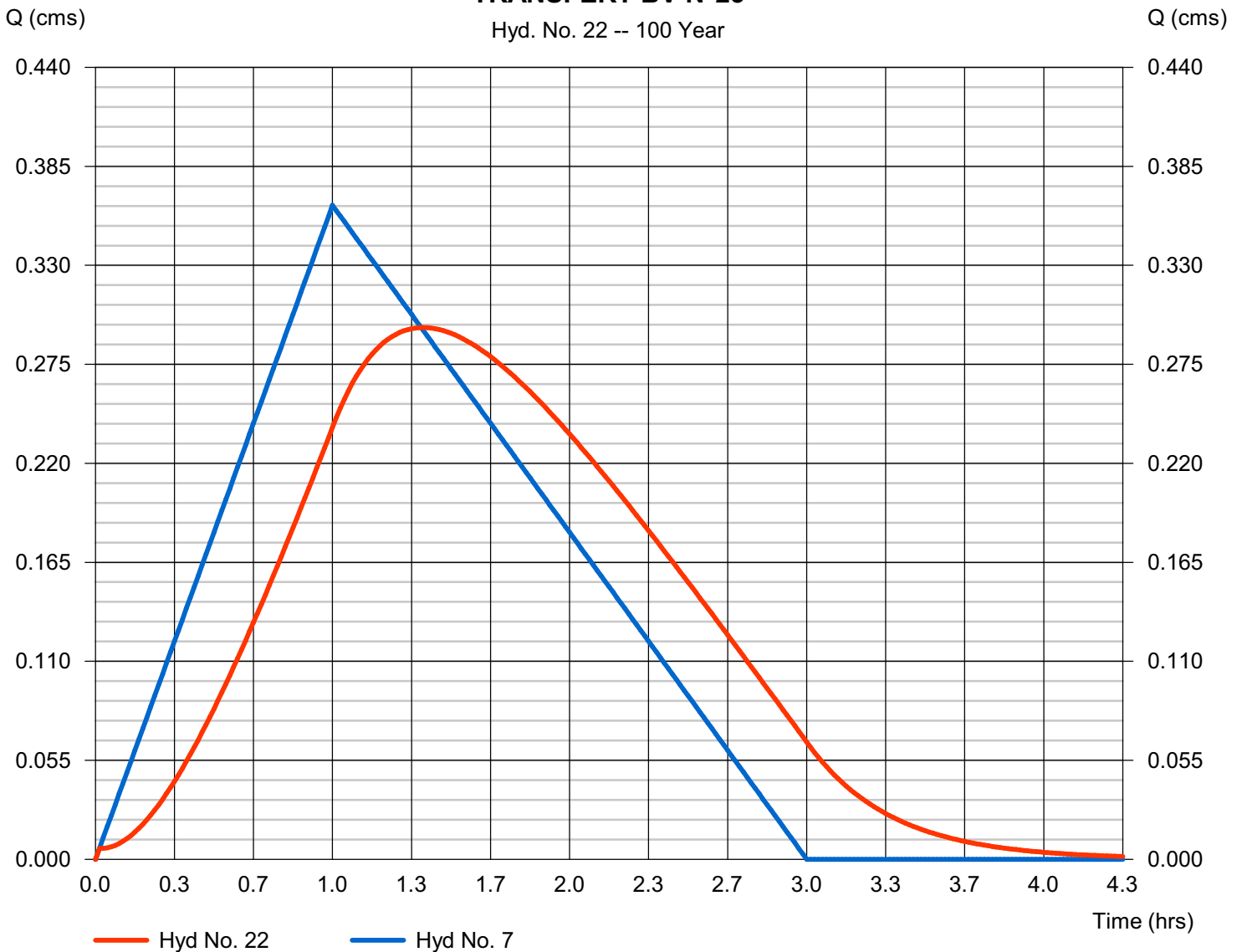
### TRANSFERT BV N°23

Hydrograph type	= Reach	Peak discharge	= 0.295 cms
Storm frequency	= 100 yrs	Time to peak	= 1.38 hrs
Time interval	= 1 min	Hyd. volume	= 1 969.6 cum
Inflow hyd. No.	= 7 - BV N°23	Section type	= Rectangular
Reach length	= 1938.0 m	Channel slope	= 1.4 %
Manning's n	= 0.025	Bottom width	= 2.0 m
Side slope	= 0.0:1	Max. depth	= 4.0 m
Rating curve x	= 2.011	Rating curve m	= 1.426
Ave. velocity	= 1.07 m/s	Routing coeff.	= 0.0460

Modified Att-Kin routing method used.

### TRANSFERT BV N°23

Hyd. No. 22 -- 100 Year



# Hydrograph Report

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## Hyd. No. 23

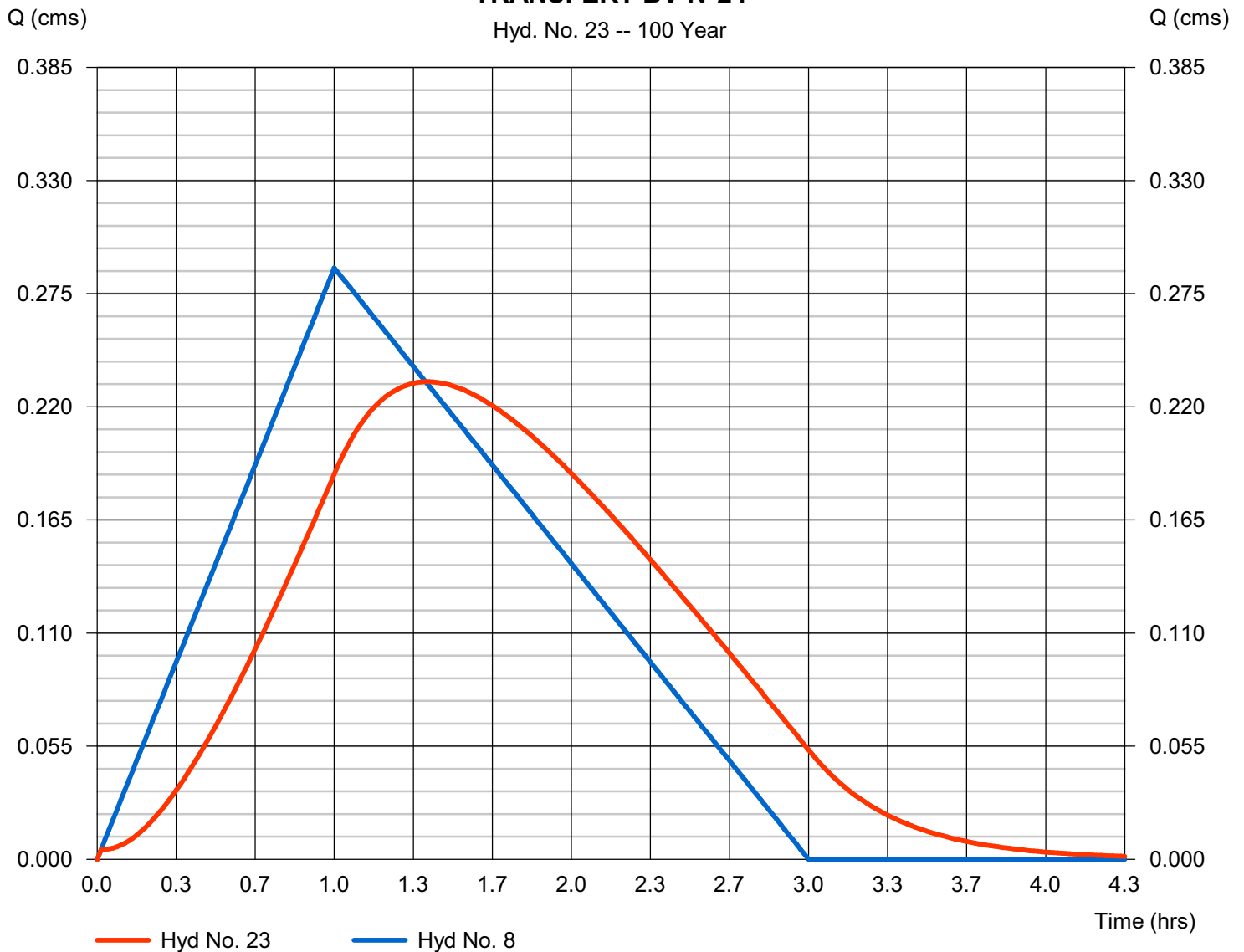
### TRANSFERT BV N°24

Hydrograph type	= Reach	Peak discharge	= 0.232 cms
Storm frequency	= 100 yrs	Time to peak	= 1.40 hrs
Time interval	= 1 min	Hyd. volume	= 1 558.8 cum
Inflow hyd. No.	= 8 - BV N°24	Section type	= Rectangular
Reach length	= 1960.0 m	Channel slope	= 1.6 %
Manning's n	= 0.025	Bottom width	= 2.0 m
Side slope	= 0.0:1	Max. depth	= 4.0 m
Rating curve x	= 2.150	Rating curve m	= 1.426
Ave. velocity	= 1.04 m/s	Routing coeff.	= 0.0445

Modified Att-Kin routing method used.

### TRANSFERT BV N°24

Hyd. No. 23 -- 100 Year





# Hydrograph Report

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## Hyd. No. 24

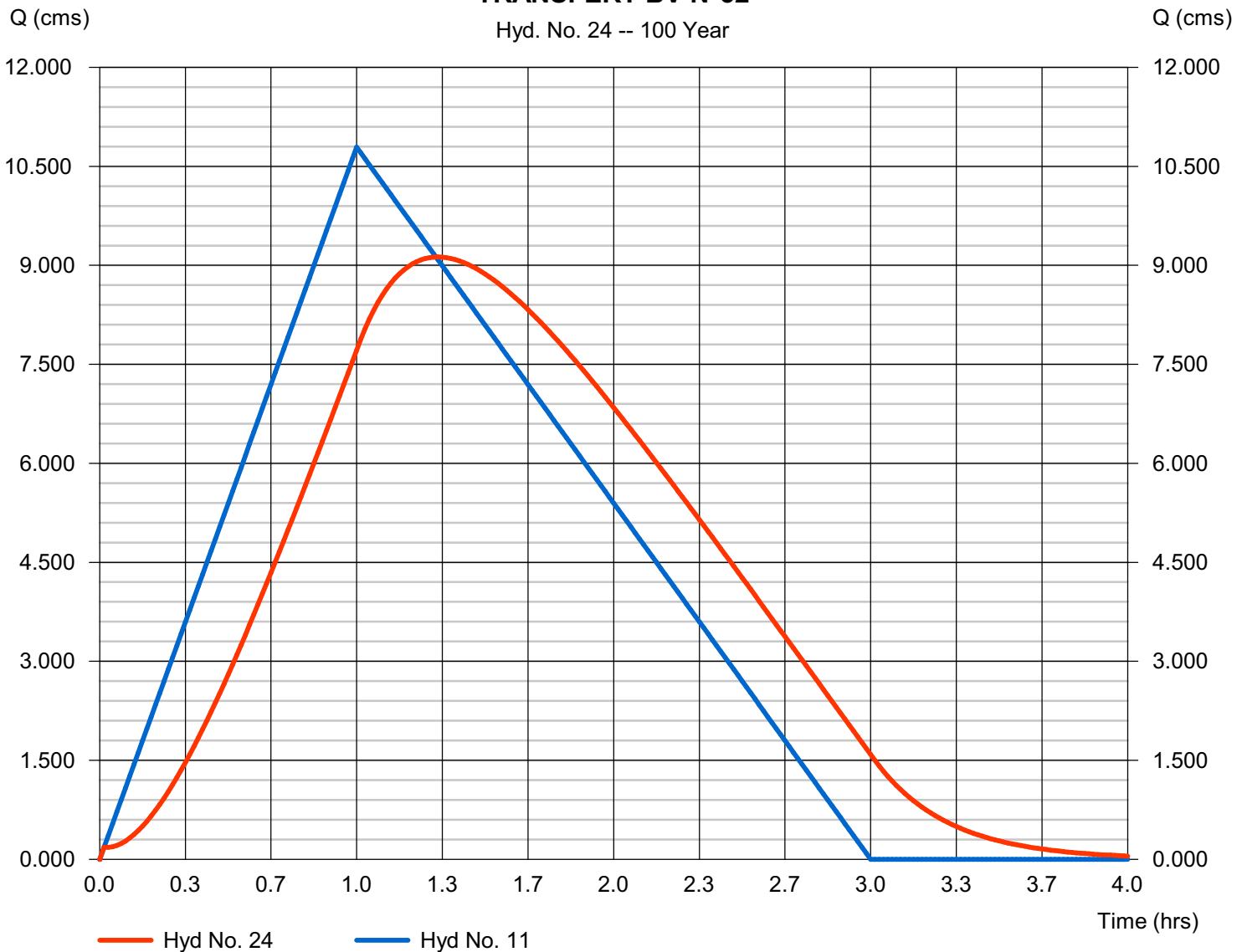
### TRANSFERT BV N°32

Hydrograph type	= Reach	Peak discharge	= 9.127 cms
Storm frequency	= 100 yrs	Time to peak	= 1.32 hrs
Time interval	= 1 min	Hyd. volume	= 58 463.3 cum
Inflow hyd. No.	= 11 - BV N°32	Section type	= Rectangular
Reach length	= 3124.0 m	Channel slope	= 0.6 %
Manning's n	= 0.026	Bottom width	= 2.0 m
Side slope	= 0.0:1	Max. depth	= 4.0 m
Rating curve x	= 1.266	Rating curve m	= 1.426
Ave. velocity	= 2.12 m/s	Routing coeff.	= 0.0565

Modified Att-Kin routing method used.

### TRANSFERT BV N°32

Hyd. No. 24 -- 100 Year



# Hydrograph Report

Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2010 by Autodesk, Inc. v9.25

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## Hyd. No. 25

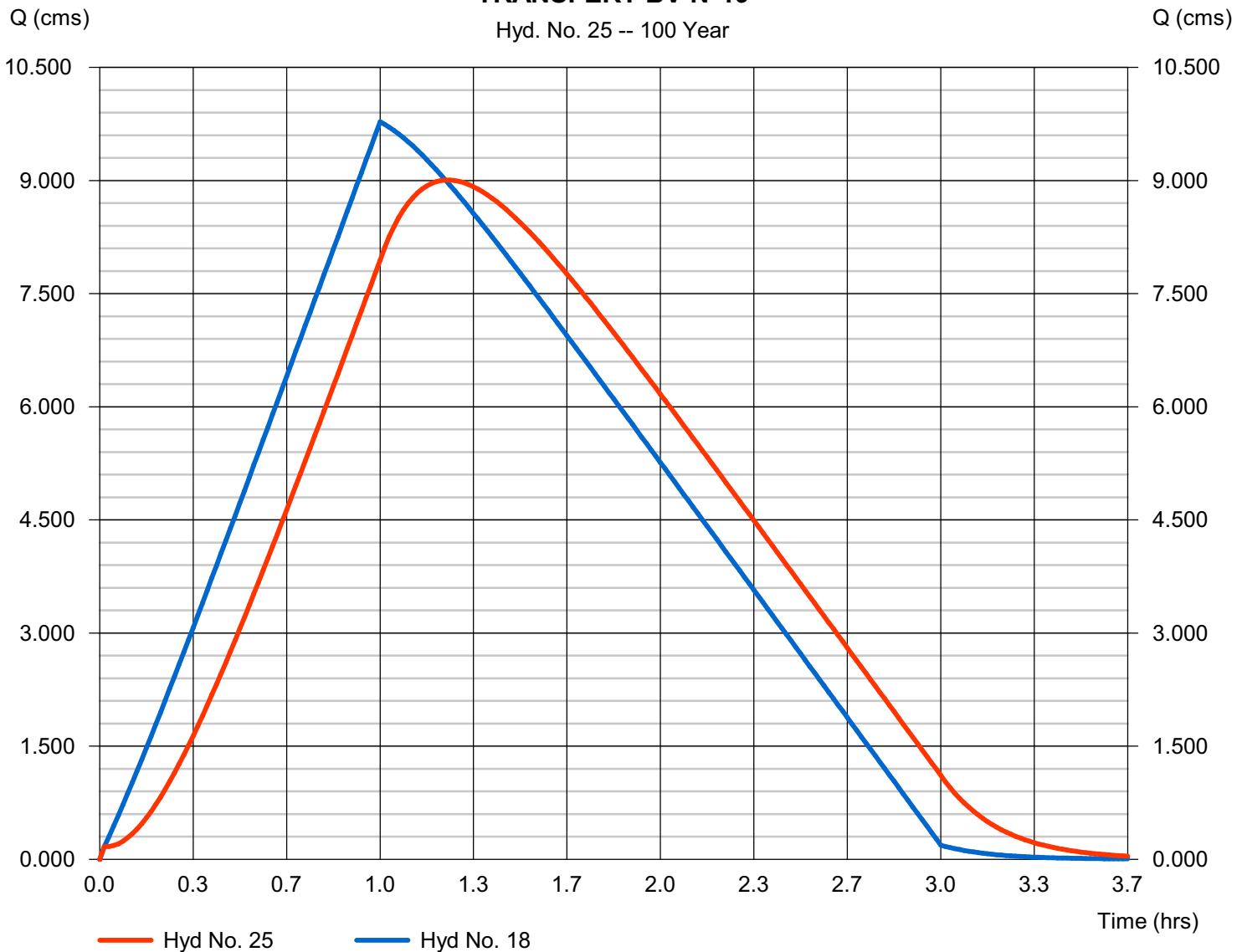
### TRANSFERT BV N°19

Hydrograph type	= Reach	Peak discharge	= 9.006 cms
Storm frequency	= 100 yrs	Time to peak	= 1.25 hrs
Time interval	= 1 min	Hyd. volume	= 54 953.2 cum
Inflow hyd. No.	= 18 - EXUTOIRE BV N°19	Section type	= Rectangular
Reach length	= 2180.0 m	Channel slope	= 0.9 %
Manning's n	= 0.025	Bottom width	= 2.0 m
Side slope	= 0.0:1	Max. depth	= 4.0 m
Rating curve x	= 1.612	Rating curve m	= 1.426
Ave. velocity	= 2.44 m/s	Routing coeff.	= 0.0915

Modified Att-Kin routing method used.

### TRANSFERT BV N°19

Hyd. No. 25 -- 100 Year



# Hydrograph Report

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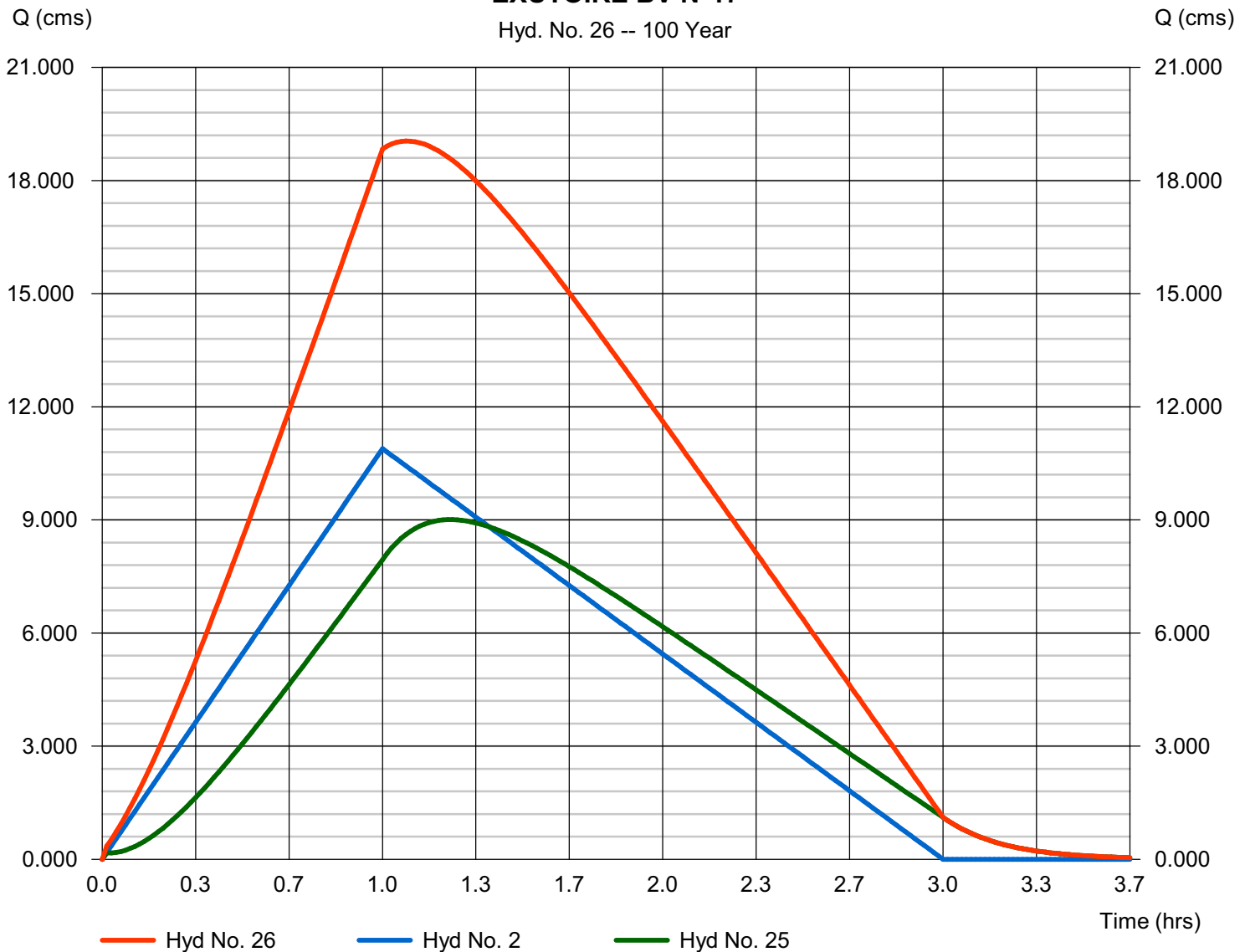
## Hyd. No. 26

EXUTOIRE BV N°17

Hydrograph type	= Combine	Peak discharge	= 19.05 cms
Storm frequency	= 100 yrs	Time to peak	= 1.08 hrs
Time interval	= 1 min	Hyd. volume	= 113 758.1 cum
Inflow hyds.	= 2, 25	Contrib. drain. area	= 417.200 hectare

### EXUTOIRE BV N°17

Hyd. No. 26 -- 100 Year



# Hydrograph Report

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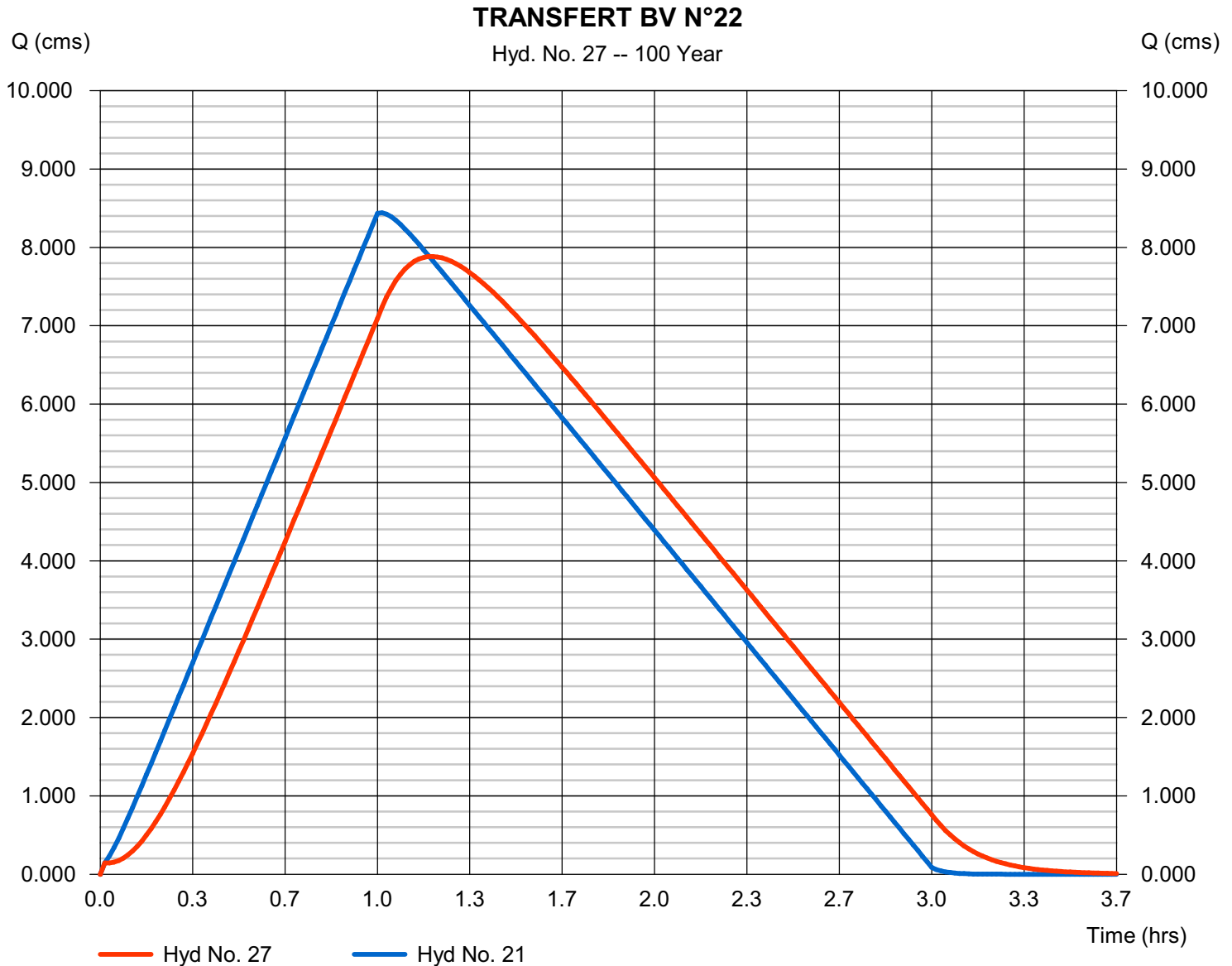
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## Hyd. No. 27

### TRANSFERT BV N°22

Hydrograph type	= Reach	Peak discharge	= 7.884 cms
Storm frequency	= 100 yrs	Time to peak	= 1.20 hrs
Time interval	= 1 min	Hyd. volume	= 46 571.3 cum
Inflow hyd. No.	= 21 - EXUTOIRE BV N°22	Section type	= Rectangular
Reach length	= 1840.0 m	Channel slope	= 1.0 %
Manning's n	= 0.025	Bottom width	= 2.0 m
Side slope	= 0.0:1	Max. depth	= 4.0 m
Rating curve x	= 1.699	Rating curve m	= 1.426
Ave. velocity	= 2.43 m/s	Routing coeff.	= 0.1068

Modified Att-Kin routing method used.



# Hydrograph Report

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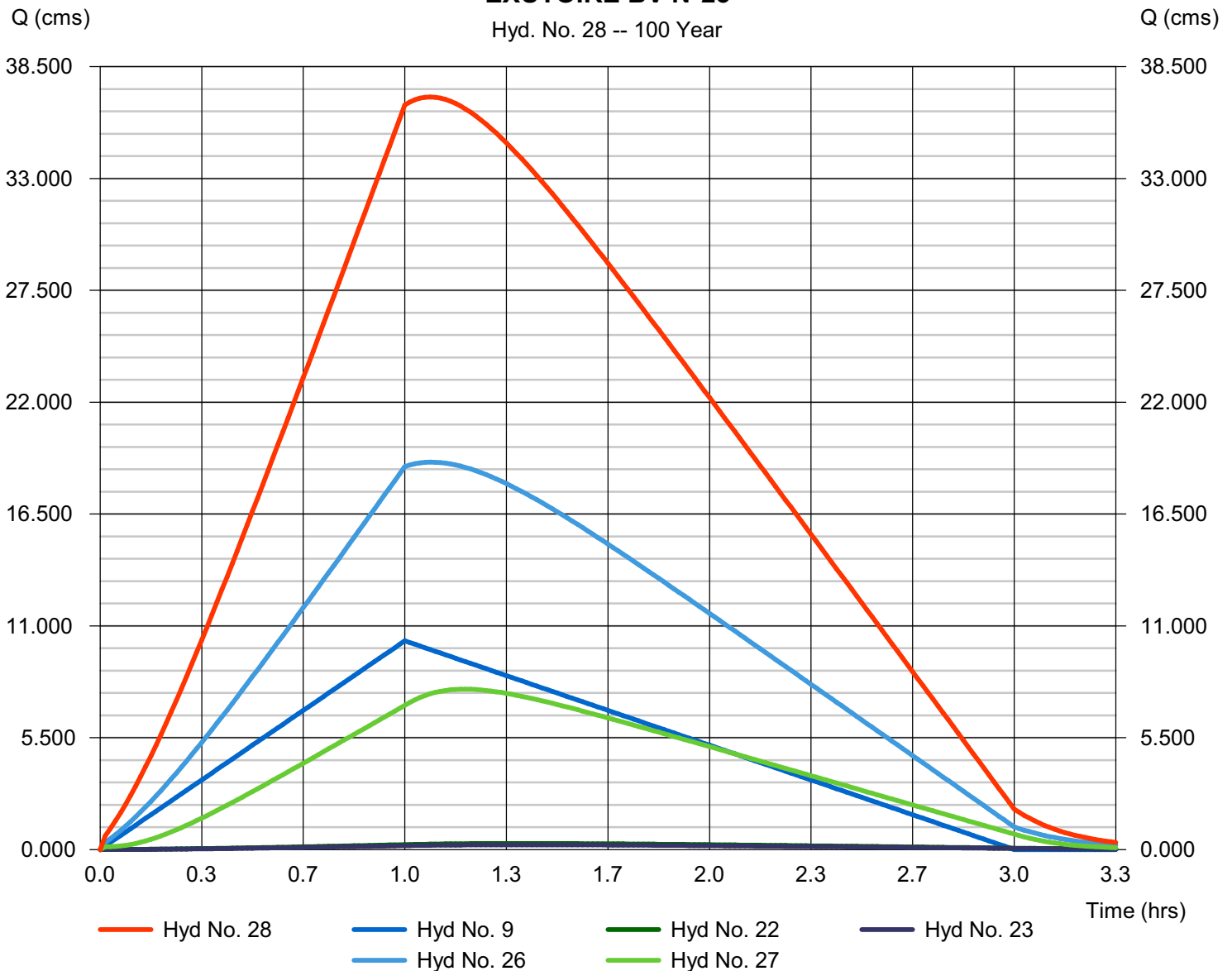
## Hyd. No. 28

EXUTOIRE BV N°25

Hydrograph type	= Combine	Peak discharge	= 37.01 cms
Storm frequency	= 100 yrs	Time to peak	= 1.08 hrs
Time interval	= 1 min	Hyd. volume	= 219 268.6 cum
Inflow hyds.	= 9, 22, 23, 26, 27	Contrib. drain. area	= 409.500 hectare

### EXUTOIRE BV N°25

Hyd. No. 28 -- 100 Year



# Hydrograph Report

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## Hyd. No. 29

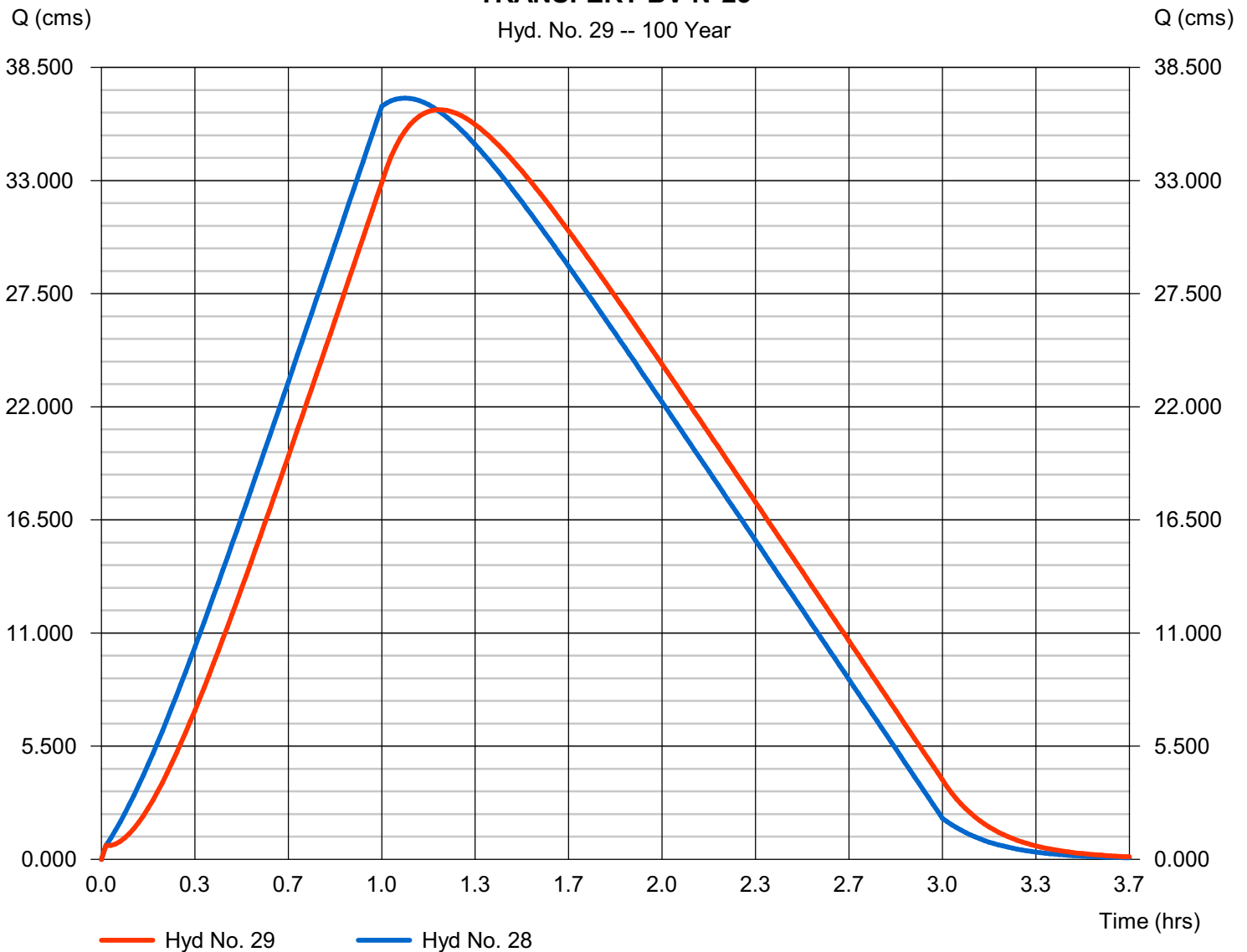
### TRANSFERT BV N°25

Hydrograph type	= Reach	Peak discharge	= 36.44 cms
Storm frequency	= 100 yrs	Time to peak	= 1.20 hrs
Time interval	= 1 min	Hyd. volume	= 219 492.5 cum
Inflow hyd. No.	= 28 - EXUTOIRE BV N°25	Section type	= Rectangular
Reach length	= 1063.0 m	Channel slope	= 0.3 %
Manning's n	= 0.025	Bottom width	= 2.0 m
Side slope	= 0.0:1	Max. depth	= 4.0 m
Rating curve x	= 0.931	Rating curve m	= 1.426
Ave. velocity	= 2.47 m/s	Routing coeff.	= 0.1810

Modified Att-Kin routing method used.

### TRANSFERT BV N°25

Hyd. No. 29 -- 100 Year



# Hydrograph Report

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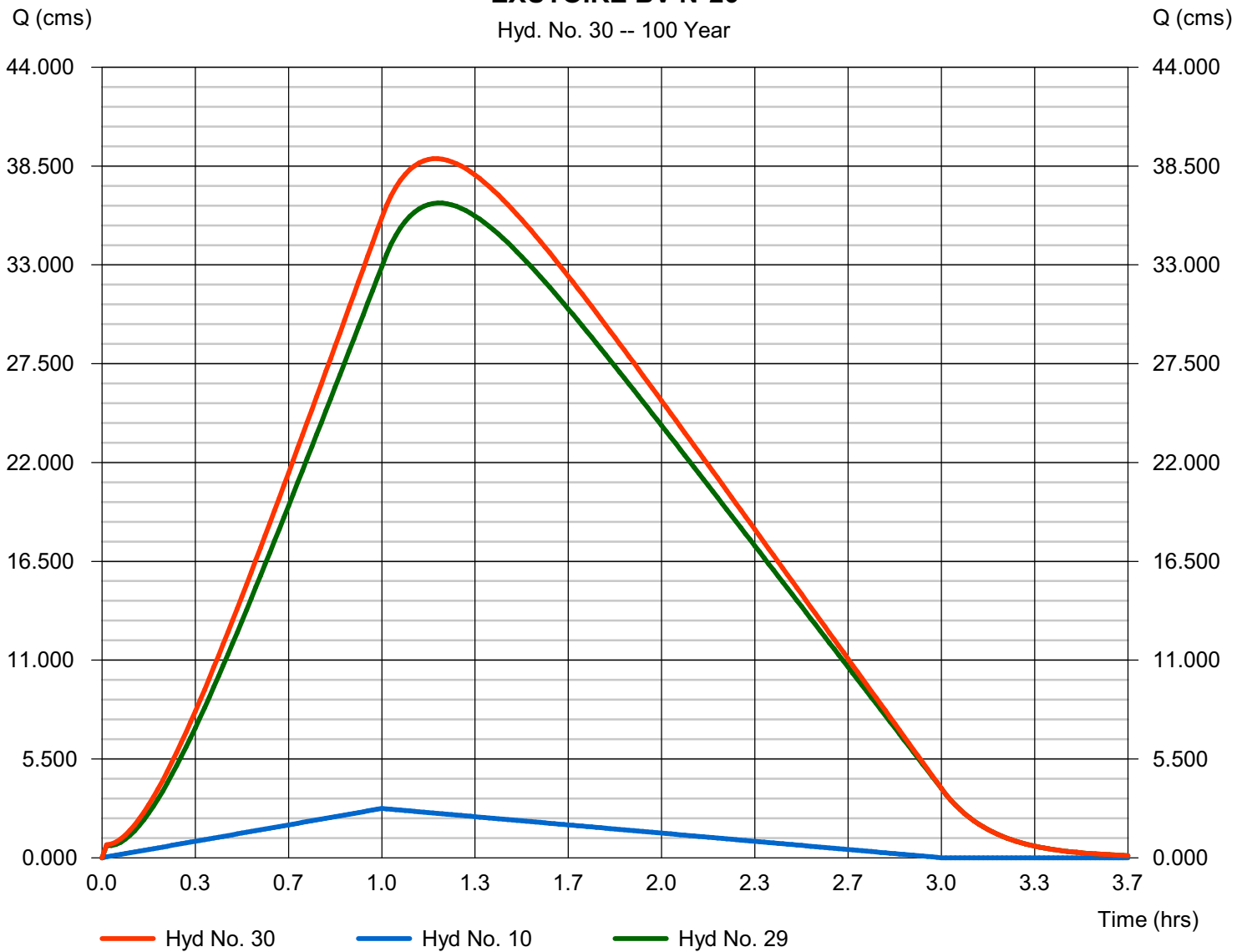
## Hyd. No. 30

EXUTOIRE BV N°26

Hydrograph type	= Combine	Peak discharge	= 38.91 cms
Storm frequency	= 100 yrs	Time to peak	= 1.20 hrs
Time interval	= 1 min	Hyd. volume	= 234 295.7 cum
Inflow hyds.	= 10, 29	Contrib. drain. area	= 109.400 hectare

### EXUTOIRE BV N°26

Hyd. No. 30 -- 100 Year



# Hydrograph Report

Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2010 by Autodesk, Inc. v9.25

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## Hyd. No. 31

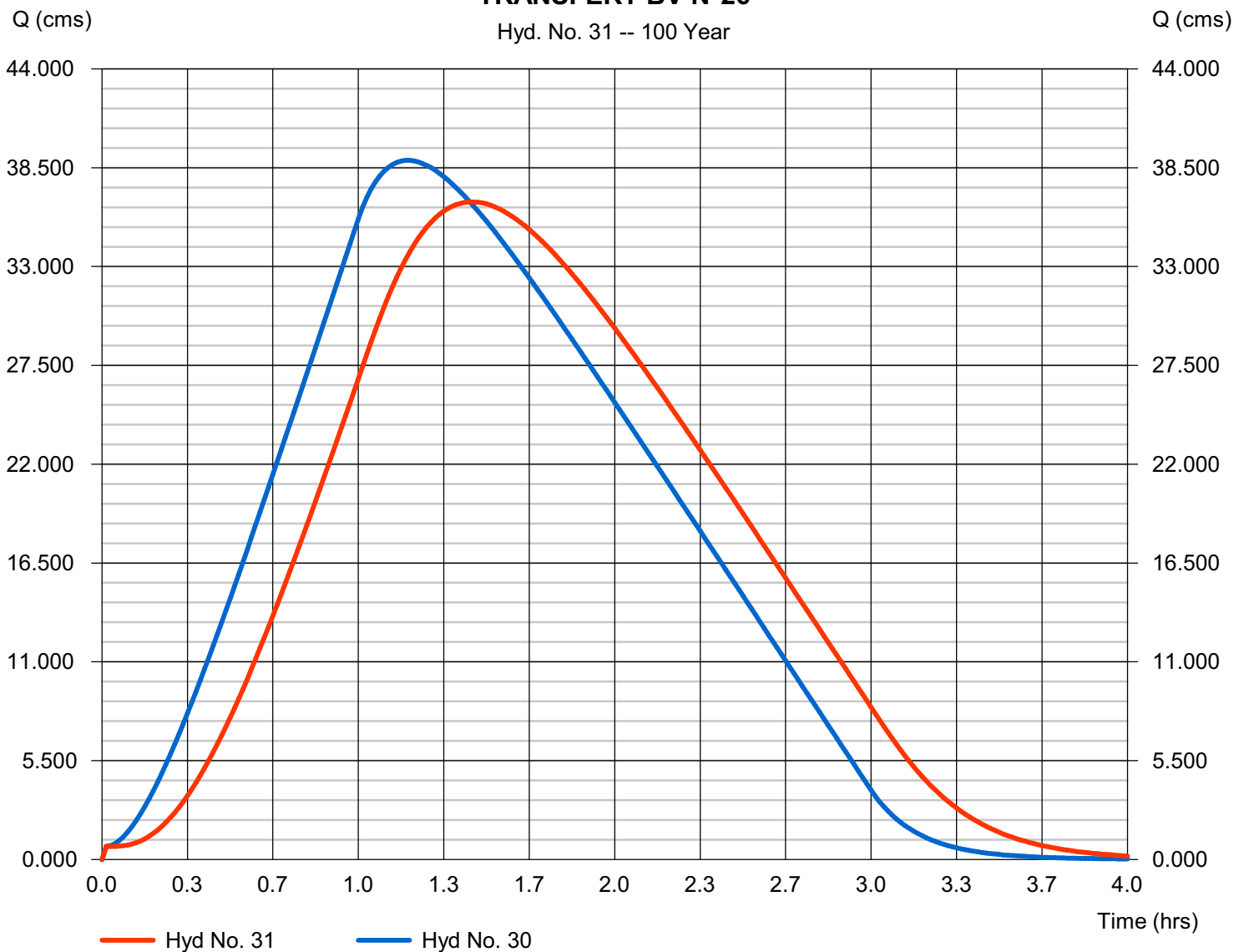
### TRANSFERT BV N°26

Hydrograph type	= Reach	Peak discharge	= 36.60 cms
Storm frequency	= 100 yrs	Time to peak	= 1.45 hrs
Time interval	= 1 min	Hyd. volume	= 234 851.4 cum
Inflow hyd. No.	= 30 - EXUTOIRE BV N°26	Section type	= Rectangular
Reach length	= 3286.0 m	Channel slope	= 0.6 %
Manning's n	= 0.026	Bottom width	= 2.0 m
Side slope	= 0.0:1	Max. depth	= 4.0 m
Rating curve x	= 1.266	Rating curve m	= 1.426
Ave. velocity	= 3.11 m/s	Routing coeff.	= 0.0779

Modified Att-Kin routing method used.

### TRANSFERT BV N°26

Hyd. No. 31 -- 100 Year





# Hydrograph Report

Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2010 by Autodesk, Inc. v9.25

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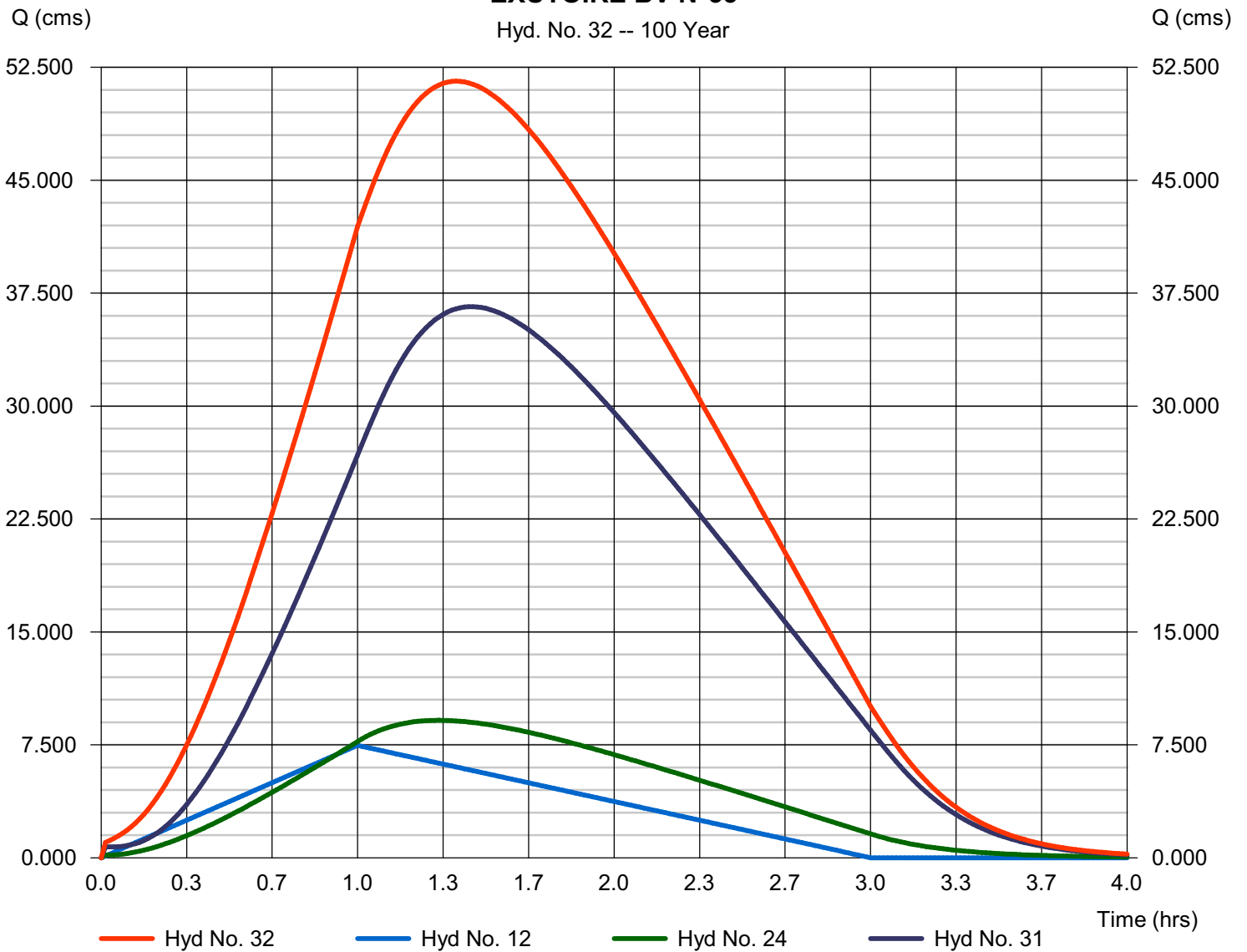
## Hyd. No. 32

EXUTOIRE BV N°33

Hydrograph type	= Combine	Peak discharge	= 51.58 cms
Storm frequency	= 100 yrs	Time to peak	= 1.38 hrs
Time interval	= 1 min	Hyd. volume	= 333 626.7 cum
Inflow hyds.	= 12, 24, 31	Contrib. drain. area	= 357.500 hectare

### EXUTOIRE BV N°33

Hyd. No. 32 -- 100 Year



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**100 - Year**

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