SEEA Water exercise on physical supply and use tables

Cola City, Cow Town and Capital Harbor.

Example Physical water supply and use around Cola City.

1. Supply-use tables
2. Diagram

Physical use table

Physical units

		Industries (by ISIC categories)						Households	Total
		11	35	36	37	49	Total		
From the environment	U1 - Total abstraction (=a.1+a.2= b.1+b.2):		150	100				6	256
	a.1- Abstraction for own use		150	1				6	157
	a.2- Abstraction for distribution			99					99
	b.1- From water resources:								
	Surface water		150	100				6	256
	Groundwater								
	Soil water								
	b.2- From other sources								
	Collection of precipitation								
	Abstraction from the sea								
Within the economy	U2 - Use of water received from other economic units	48	2	0	26	4	80	26	106
	of which: Wastewater to sewerage				26		26		26
U=U1+U2 - **Total use of water**		48	152	100	26	4	330	32	362

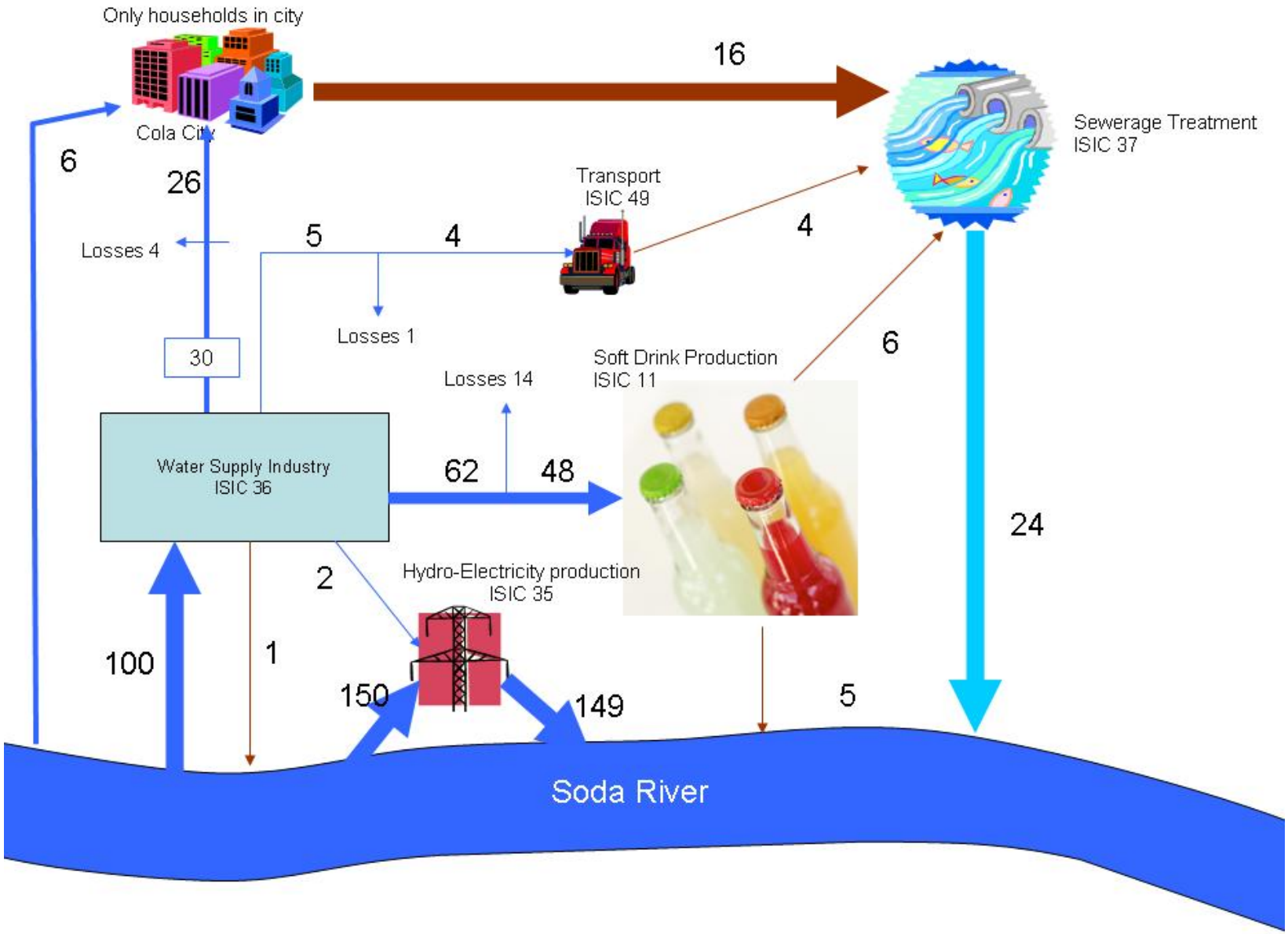
Physical supply table

Physical units

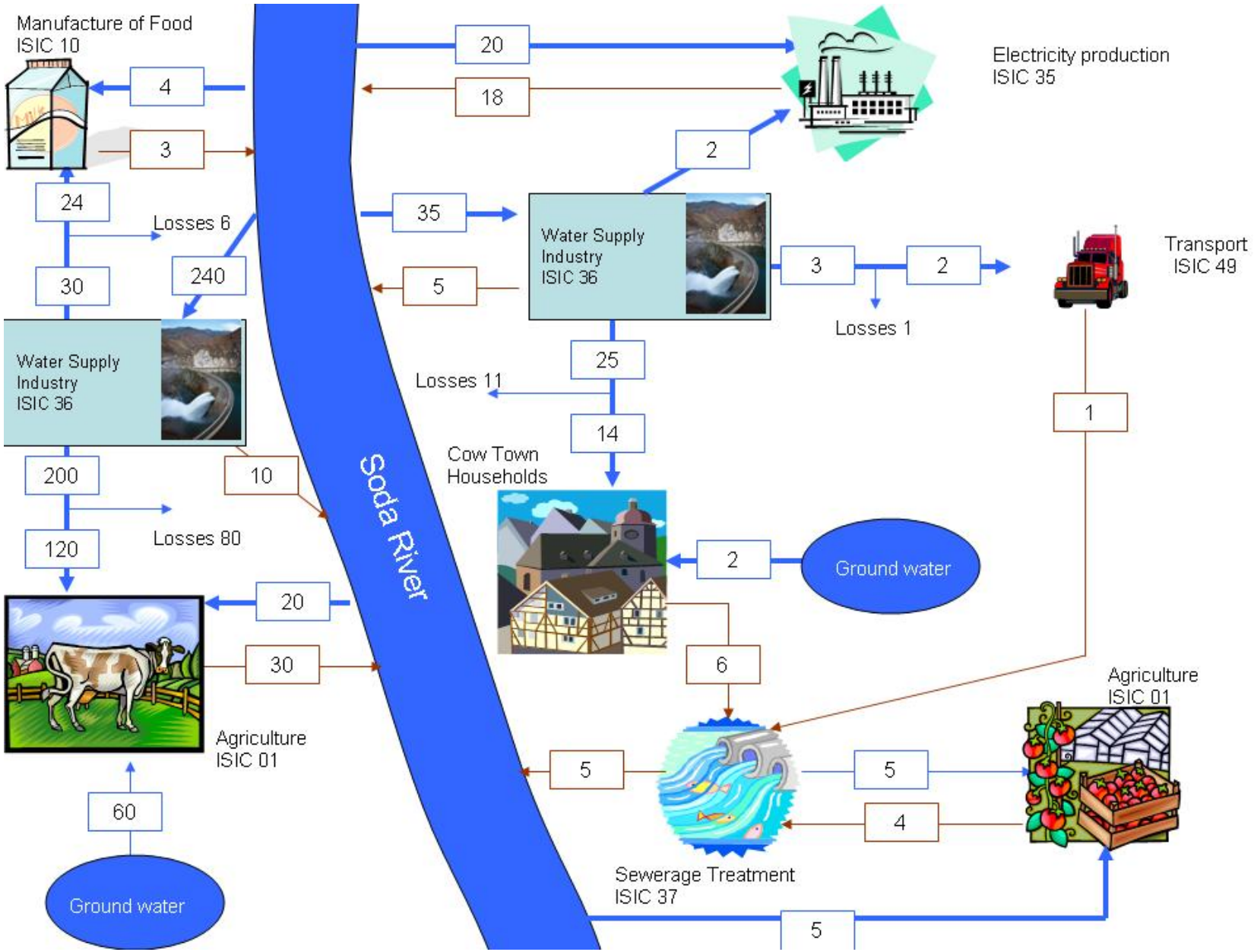
		Industries (by ISIC categories)						Households	Total
		11	35	36	37	49	Total		
Within the economy	S1 - Supply of water to other economic units	6	0	80	0	4	90	16	106
	of which: Reused water								
	Wastewater to sewerage	6	0	0	0	4	10	16	26
To the environment	S2 - Total returns (= d.1+d.2)	5	149	20	24	0	198	0	198
	d.1- To water resources								
	Surface water	5	149	20	24	0	198	0	198
	Groundwater								
	Soil water								
	d.2- To other sources (e.g. Sea water)								
S - **Total supply of water** (= S1+S2)		11	149	100	24	4	288	16	304
Consumption (U - S)		37	3	0	2	0	42	16	58

United Nations:
Assumes all losses are returned to surface water resources. Includes losses of 19 (1+4+14) + 1 direct return

Cola City


Only households in city
Cola City
16
Sewerage Treatment
ISIC 37
6
26
Transport
ISIC 49
4
Losses 4
5
4
Losses 1
30
Losses 14
Soft Drink Production
ISIC 11
6
Water Supply Industry
ISIC 36
62
48
24
2
Hydro-Electricity production
ISIC 35
100
1
150
149
5
Soda River

Cow Town


Manufacture of Food
ISIC 10
4
3
24
Losses 6
30
240
Water Supply
Industry
ISIC 36
200
10
Losses 80
120
20
30
Agriculture
ISIC 01
60
Ground water
Soda River
20
18
Electricity production
ISIC 35
2
35
Water Supply
Industry
ISIC 36
5
3
2
Losses 1
Transport
ISIC 49
25
Losses 11
14
1
Cow Town
Households
2
Ground water
6
5
5
4
Sewerage Treatment
ISIC 37
Agriculture
ISIC 01
5

Exercise: Use the diagrams showing the physical water supply and use around Cow Town and in Capital Harbor to fill in the physical supply-use tables.

Cow Town

Physical use table

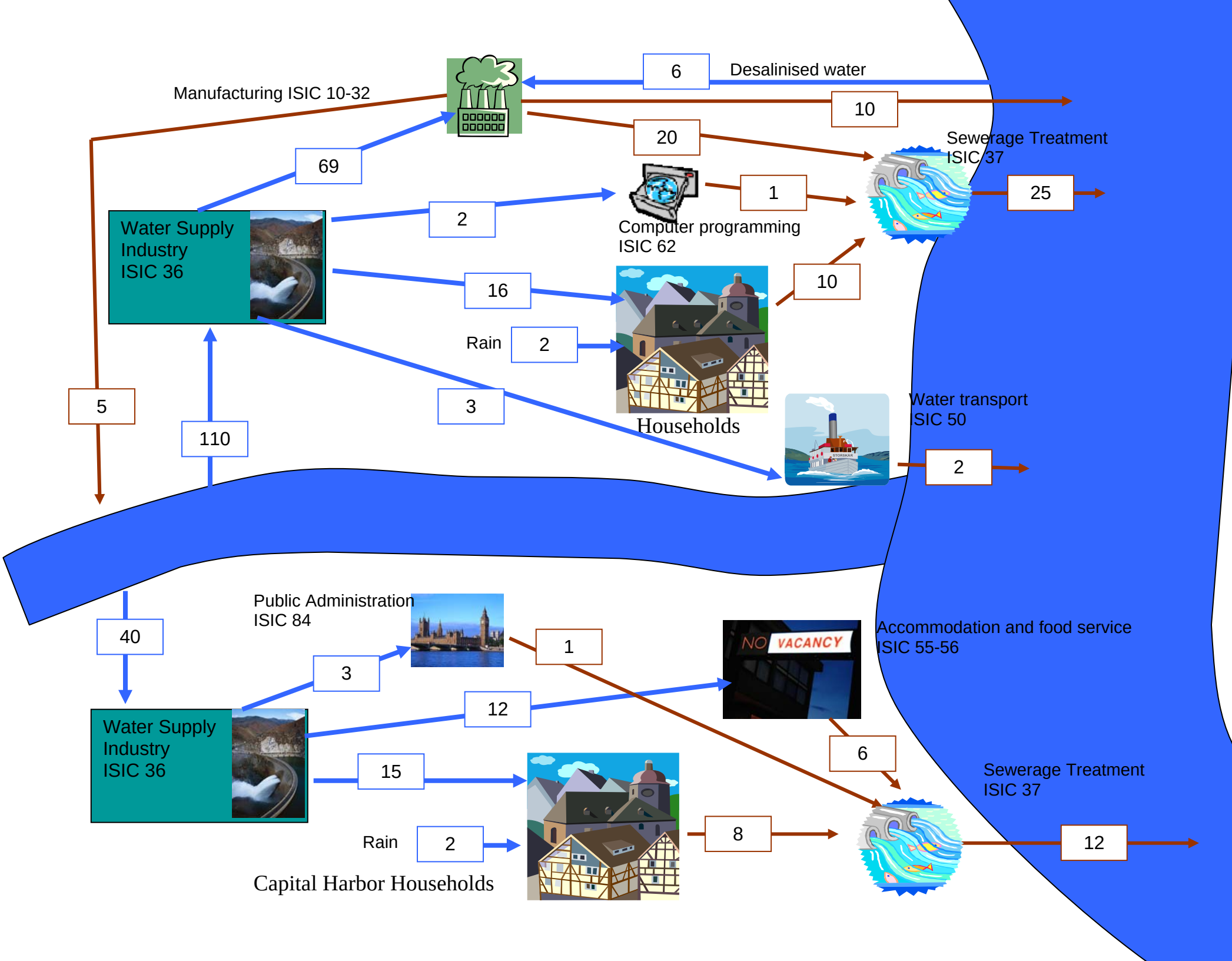
Physical units

		Industries (by ISIC categories)							Households	Total
		1	10	35	36	37	49	Total		
From the environment	U1 - Total abstraction (=a.1+a.2= b.1+b.2):									
	a.1- Abstraction for own use									
	a.2- Abstraction for distribution									
	b.1- From water resources:									
	Surface water									
	Groundwater									
	Soil water									
	b.2- From other sources									
	Collection of precipitation									
	Abstraction from the sea									
Within the economy	U2 - Use of water received from other economic units									
	of which : Wastewater to sewerage									
U=U1+U2 - **Total use of water**										

Physical supply table

Physical units

		Industries (by ISIC categories)							Households	Total
		1	10	35	36	37	49	Total		
Within the economy	S1 - Supply of water to other economic units									
	of which : Reused water									
	Wastewater to sewerage									
To the environment	S2 - Total returns (= d.1+d.2)									
	d.1- To water resources									
	Surface water									
	Groundwater									
	Soil water									
	d.2- To other sources (e.g. Sea water)									
S - **Total supply of water** (= S1+S2)										


Manufacturing ISIC 10-32
6
Desalinised water
10
20
69
Sewerage Treatment
ISIC 37
25
1
2
Computer programming
ISIC 62
Water Supply
Industry
ISIC 36
16
10
Rain
2
Households
5
110
3
Water transport
ISIC 50
2
Public Administration
ISIC 84
40
1
3
Accommodation and food service
ISIC 55-56
NO VACANCY
12
Water Supply
Industry
ISIC 36
6
Sewerage Treatment
ISIC 37
15
Rain
2
8
12
Capital Harbor Households

Capital Harbor		Industries (by ISIC categories)										Household	Total
		1	10 to 32	35	36	37	50	55-56	62	84	Total		
From the environment	b.1+b.2):												
	a.1- Abstraction for own use												
	a.2- Abstraction for distribution												
	b.1- From water resources:												
	Surface water												
	Groundwater												
	Soil water												
	b.2- From other sources												
	Collection of precipitation												
	Abstraction from the sea												
Within the economy	U2 - Use of water received from other economic units												
	of which: Wastewater to sewerage												
U - Total use of water (=U1+U2)													

Physical supply table

Physical units

Capital Harbor		Industries (by ISIC categories)										Households	Total
		1	10 to 32	35	36	37	50	55-56	62	84	Total		
Within the economy	units												
	of which : Reused water												
	Wastewater to sewerage												
To the environment	S2 - Total returns (= d.1+d.2)												
	d.1- To water resources												
	Surface water												
	Groundwater												
	Soil water												
	d.2- To other sources (e.g. Sea water)												
S - **Total supply of water** (= S1+S2)													
Consumption (U - S)													

Be careful losses are not shown explicity for the water supply industry. The must be infered!