Is stream segment KM1, KM5 or control structure?

Backwater system run k = 1?

Is it a stream segment?

yes

• Setting revised WVQ-relations in streams.
• Balance water level stages in linked flood-affected areas.
• Computation of surplus backwater.

yes

• Initialisation of WVQ-stages per control structure.
• Setting the „afflux-condition-flag“ as „true“ or „false“.
• Execution of (optional) pre-emptying control functions.

no

no

• Initialisation of WVQ-stages per stream segment.
• Balance water level stages in linked flood-affected areas.

1 ≤ i?

i = n

is a stream segment?

yes

Get stream segment inflow Q(t) and WVQ-relation.

no

i = i - 1

Reverse stream segment loop

Is t > 1?

i = n

no

no

no

Revision of WVQ-stages

yes

Is control structure?

yes

End

Start

Reverse stream segment loop

no

no

no

Revision of WVQ-stages

Is stream segment KM1, KM5 or control structure?

no

• Setting revised WVQ-relations in streams.
• Balance water level stages in linked flood-affected areas.
• Computation of surplus backwater.