

RSA WEIR WALL/OPEN FIELD FLOOD WALL SYSTEM™

The RSA Weir Wall/Open Field Flood Wall System is designed to divert and so regulate the flow of flood water in streams to prevent downstream flooding and property damage during abnormally heavy rain events. The system is designed to meet the ASCE 7 Minimum Design Loads for Buildings and other Structures and the FEMA 55 Coastal Construction Manual as applicable. The systems are designed and engineered based on hydraulic and hydrology analysis of the location and the local soil conditions.

The RSA Weir Wall/Open Field Flood Wall System consists of a fixed dam structure located adjacent to an existing stream with one or more movable gates. The height and width on the dam structure depends on the amount of water to be retained. The number and size of gates will depend on the desired flow rate.

Early on in the storm cycle as the water level in the stream rises water is removed from the stream by powerful inlet screw pumps flowing through the Weir Wall structure and into a nearby detention field simultaneously lowering the downstream water level.

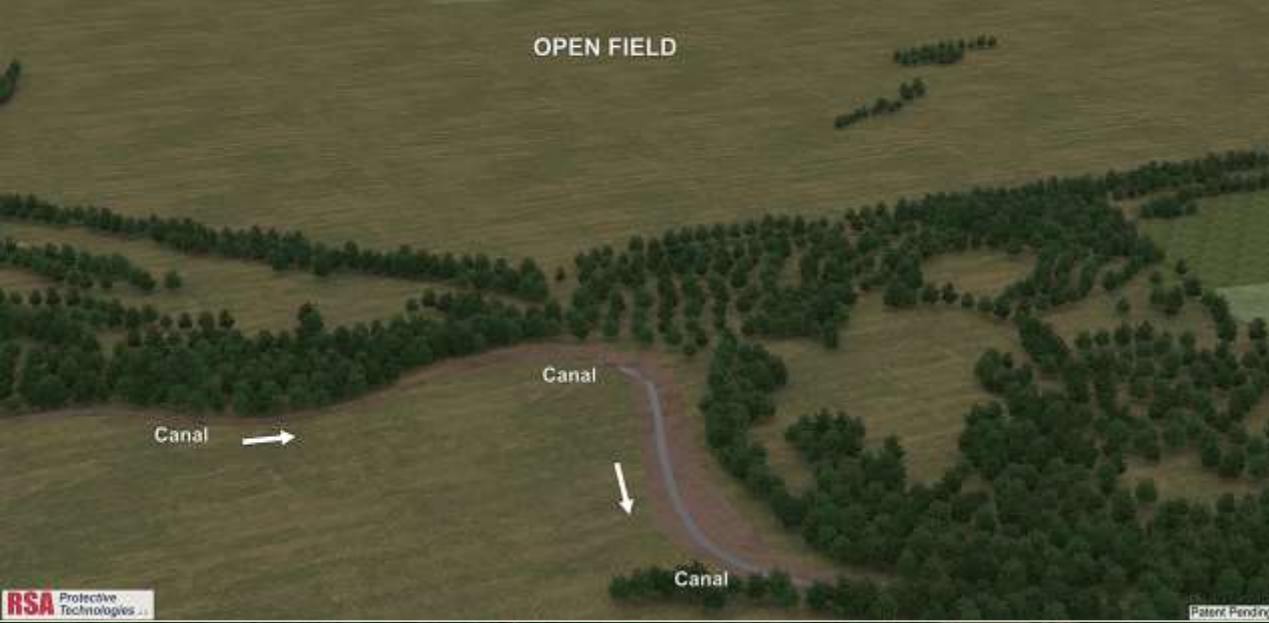
The detention fields may be many acres in size and are connected via a cut channel to the main stream. The elevation of the entrance channel bottom will be at or near the same elevation as the bottom of the stream. A detention weir wall system is positioned in the entrance channel to the detention pond or open field.

The detention weir wall system is a concrete dam structure spanning the entrance. The detention gates are positioned flush to the bottom of the entrance channel to allow the maximum amount of water to flow between the detention field.

OPERATIONS

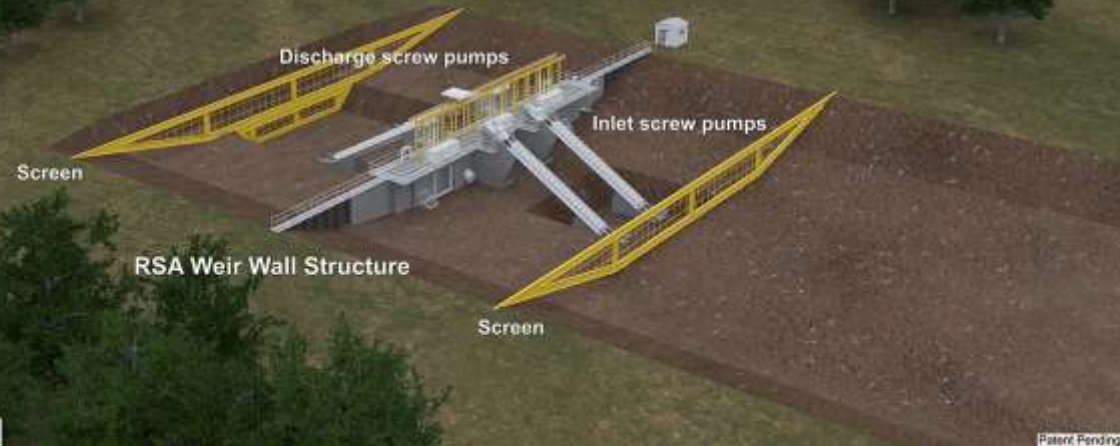
Powerful inlet screw pumps drain the river water through the weir wall structures to spill into the open detention field. Once the maximum water level is reached the pumps are turned off as the detention gates are closed to hold the water or allow for absorption into the soil. The stored water can be released slowly through sluice gates or more quickly by lowering the weir gates back into the main channel and with the aid of large discharge screw pumps.

RSA WEIR WALL/OPEN FIELD FLOOD CONTROL SYSTEM REMOVES UPSTREAM RIVER WATER TO PREVENT DOWNSTREAM FLOODING



RSA WEIR WALL/OPEN FIELD FLOOD CONTROL SYSTEM BASE OF CANAL CUT SAME AS BASE OF CANAL

OPEN FIELD



RSA WEIR WALL/OPEN FIELD FLOOD CONTROL SYSTEM

Inlet Screw Pumps drain canal spilling water into open field

Discharge Screw Pumps drain flooded open field

Purpose is to drain significant amounts of water reducing the Surface Water Elevation in the canal

Prevents downstream flooding from developing



Permission from Land Owner required

Additional berms or RSA Flood Walls can be used preventing unwanted flow back into the canal

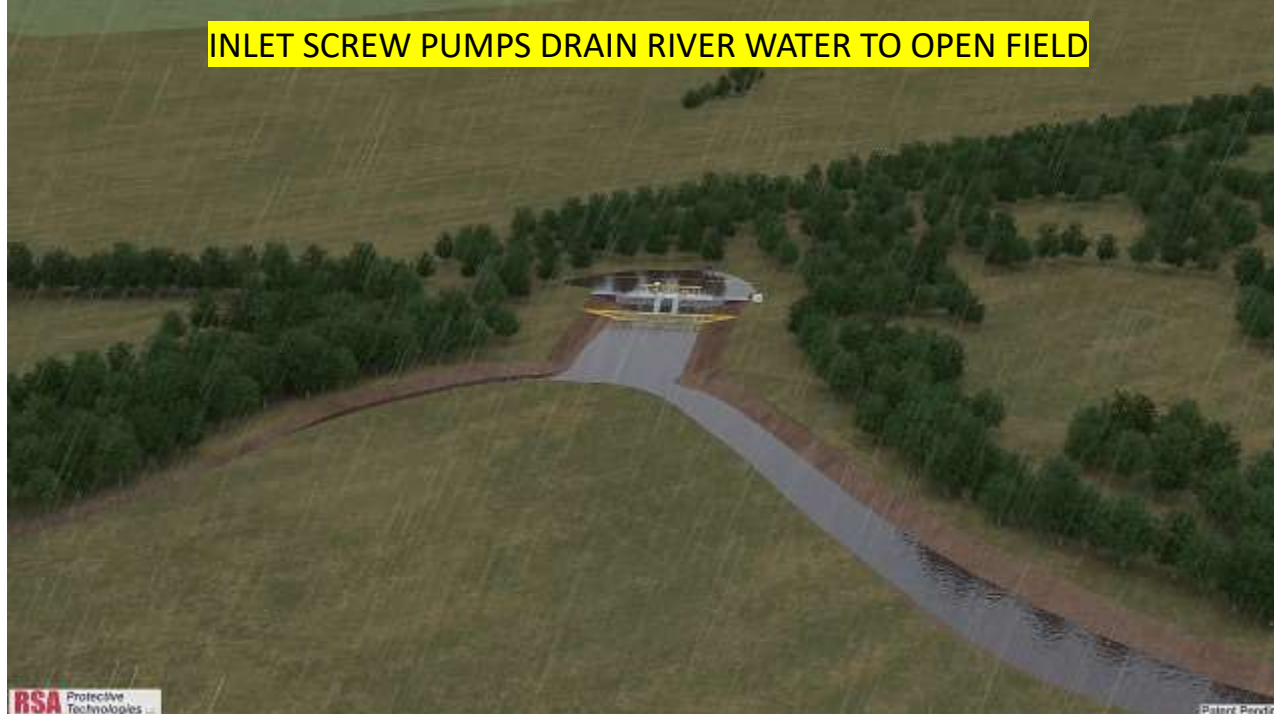




INLET SCREW PUMPS DRAIN RIVER WATER TO OPEN FIELD



INLET SCREW PUMPS DRAIN RIVER WATER TO OPEN FIELD



RSA Protective Technologies

Patent Pending



Flooding Open Field lowers Surface Water Elevation in canal

RSA Protective Technologies

Patent Pending



Canal water drains into the open field

RSA Protective Technologies

Patent Pending

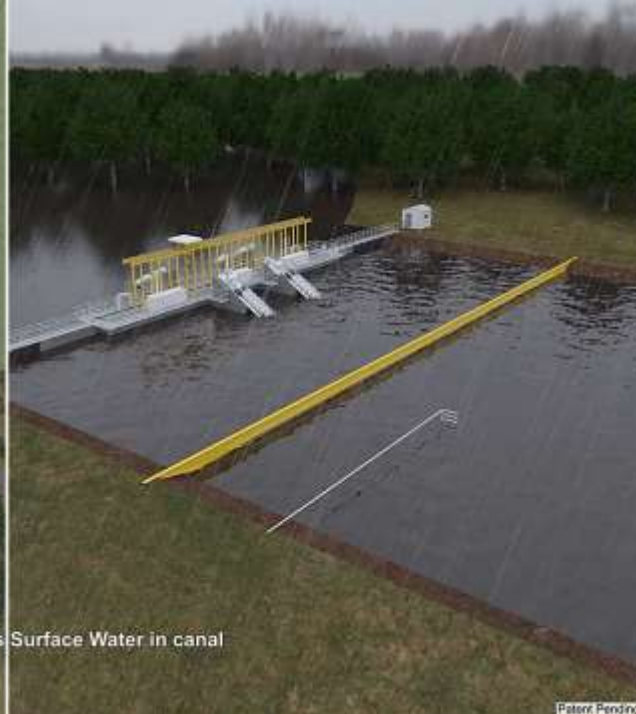
INLET SCREW PUMPS DRAIN RIVER WATER TO OPEN FIELD





Flooding Open Field lowers Surface Water in canal

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Patent Pending

STORM SUBSIDES AS SPILLED WATER IS LOCKED INTO OPEN FIELD



Canal water returns to normal flow to dry canal

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Patent Pending

CONTROLLED RELEASE- DISCHARGE SCREW PUMPS DRAIN OPEN FIELD FLOOD WATERS BACK INTO RIVER



Discharge Screw Pumps drain flooded water from Open Field

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Discharge both through Screw Pumps and opened weir wall

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Patent Pending

Discharge Screw Pumps drain flooded water from Open Field

CONTROLLED RELEASE- DISCHARGE SCREW PUMPS DRAIN OPEN FIELD FLOOD WATERS BACK INTO RIVER



Discharge Screw Pumps drain flooded water from Open Field

RSA Protective Technologies

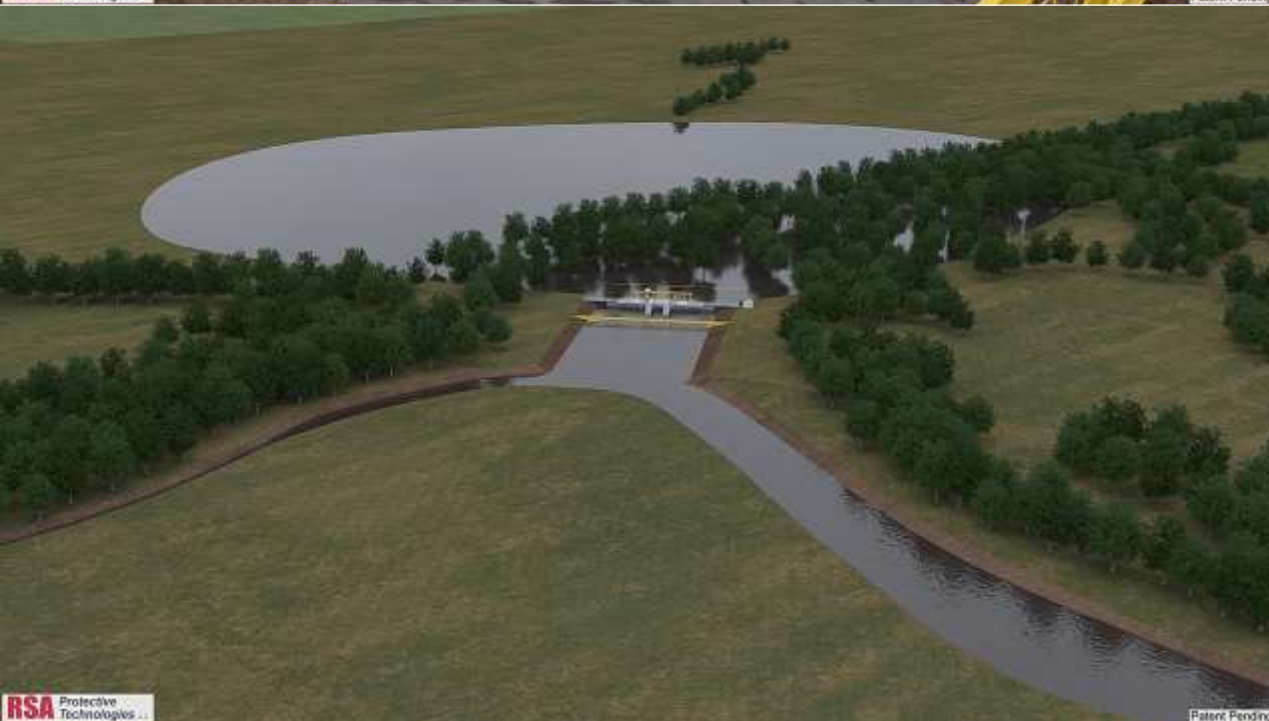
Patent Pending



Water elevation increases in canal during Open Field drainage

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STORM SUBSIDES, CANAL BACK TO NORMAL FLOW, WEIR WALL STRUCTURE CLOSED

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