



# Rain Management and Salt Floors in Solar Salt Plants

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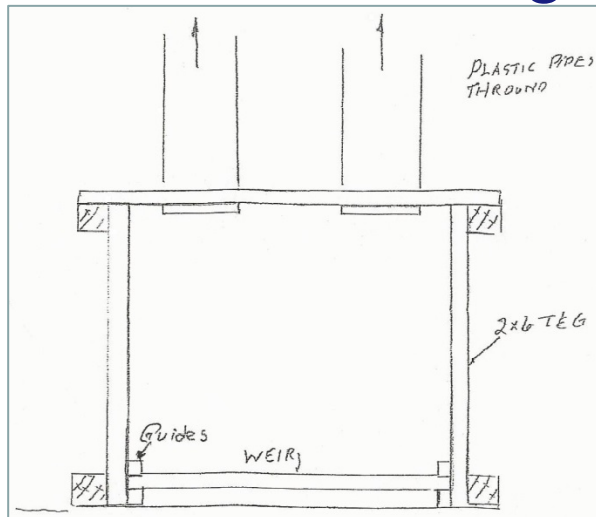
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## Rain Management: Why

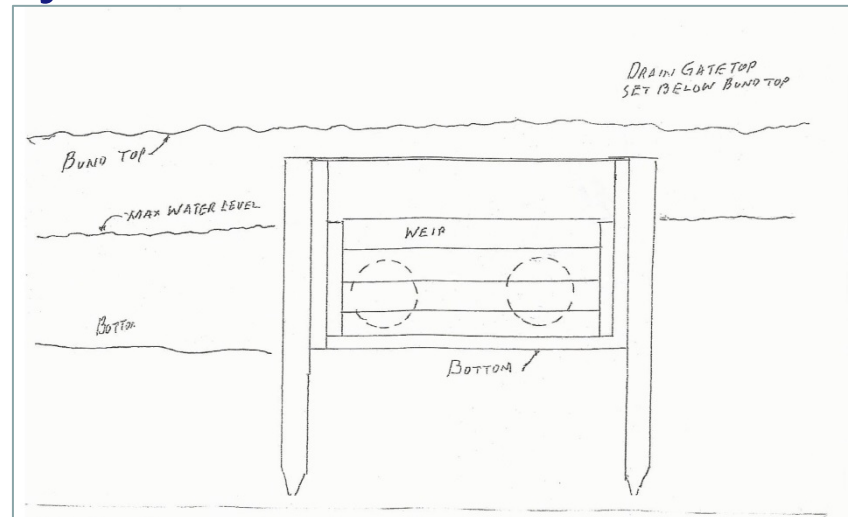
- The handling of rainfall on solar salt plants has a MAJOR effect on salt production
- May allow the use of salt floors in crystallizer operations where it would not otherwise be possible

## Rain Management: How

- Decanting of rain from the surface of all ponds using simple weir gates in the pond dikes
- Utilize ditches to move decanted brine to a pond with matching salinity



Weir Gate – Plan View



Weir Gate – Side Elevation

## Rain Management: When

Any major rainfall event, in all ponds.

*But especially:*

1. Never leave rainwater to evaporate in the crystallizers

- Use the bigger concentrators (backwards in the system) = more evaporation
- Slows down production

2. Remove water with salinity  $<$  ocean

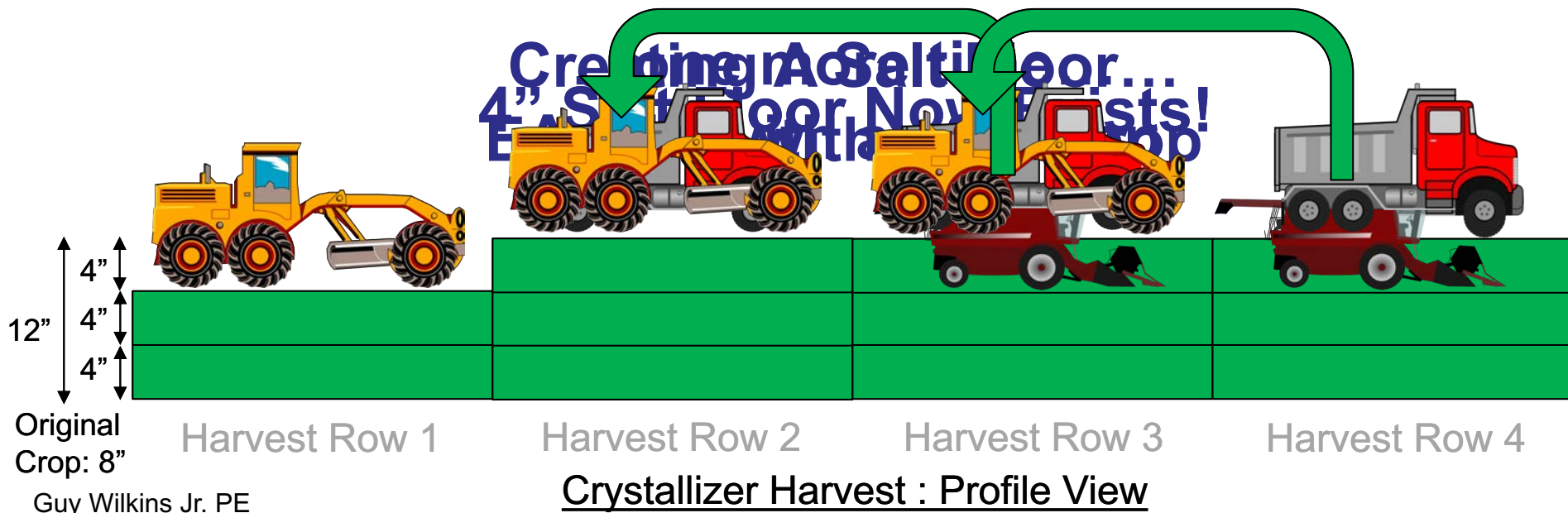
- Use Intake Pumps to empty to intake/ocean

## Salt Floors: Why

- Purity (price and market)
- Can be done even in moderate climates
- Can grow floor and continue to sell salt at the same time!
  - The reduced crop harvest is recuperated by eliminating stalled production from crystallizer repair

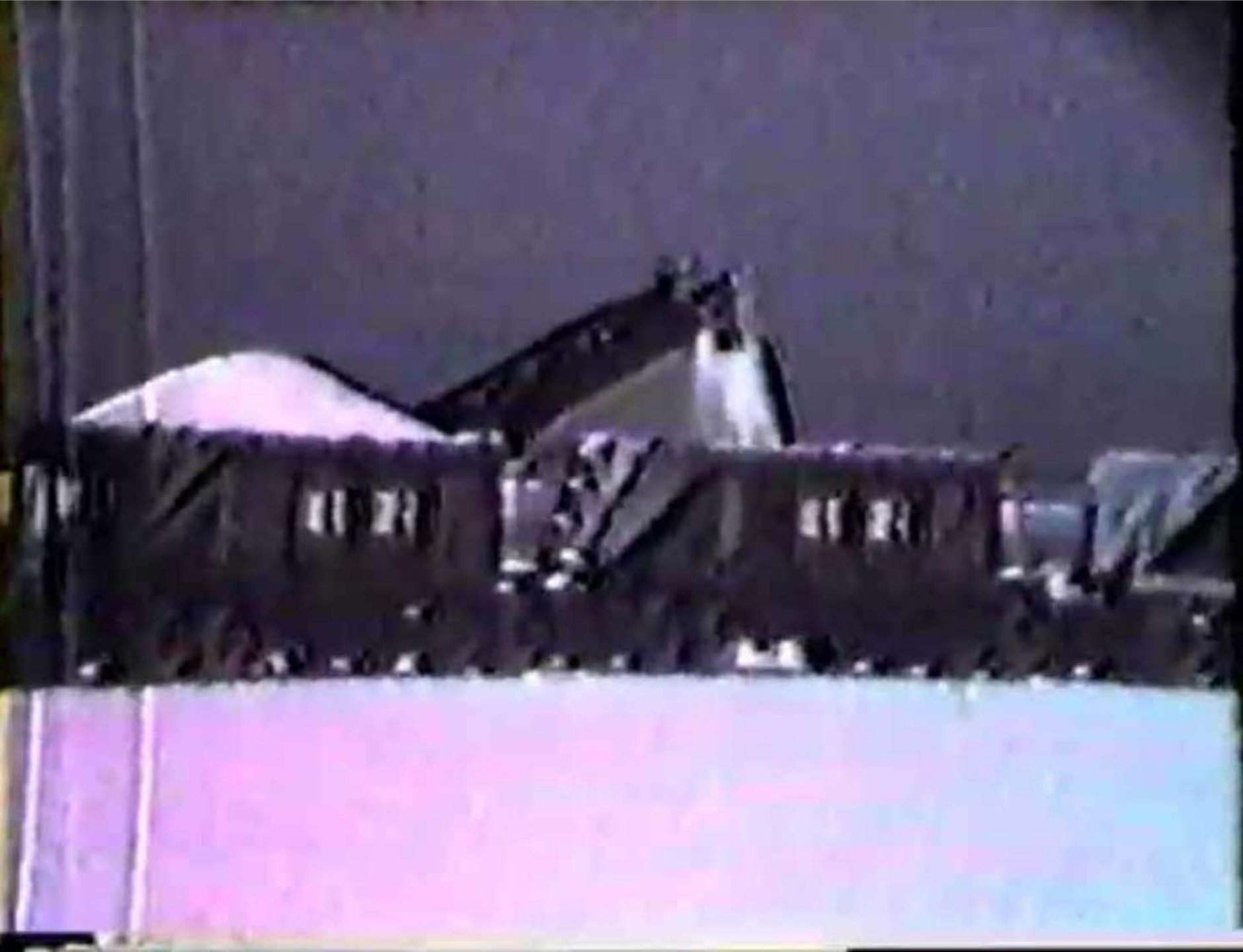
## Salt Floors: How

- Grow salt like normal (>1 yr may be required)
- Harvest only half the crop
- Haul equipment travels on 1.5 x the crop











## Salt Floors: Then What?

- To protect idle salt floors after harvest, saturated brine over the salt and decant all rain
- Occasionally not all of the salt crop is harvested in order to regrow the salt floor loss



# Thank You

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