

Commingled Plumes:

Same PRCR, Different discharge
(overprinting)

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Overprinting Plumes

- Overprinting: Is the condition that results when temporally discrete discharges are spatially co-located
- This scenario involves the condition that results when similar contaminants are discovered on the same site/AOC from two or more discharges. When this condition is the result of temporally discrete discharges (at different times) that are spatially co-located (in the same location) it is defined within this technical guidance as overprinting.

Overprinting Plumes

- When new discharge is detected, the NJDEP Hotline must be called in pursuant to Section 5.1 of the Commingled Plume Technical Guidance document.
- A CDN must also be completed and an LSRP hired if one is not working on the site.
- If the PRCR conducting the monitoring no longer owns or operates the site:
 - Call the NJDEP hotline using the language in the guidance document
 - Inform the current PRCR of the findings

Overprinting Plumes

- If the PRCR is still responsible for the site, contact the NJDEP Hotline and complete the CDN.
- The “new” discharge is now considered its own AOC.
- The PRCR can decide to tie it into the existing case (all existing timeframes then apply) or treat the AOC separately (new timeframes apply).
- If treated separately, two separate fees are required (two separate incident numbers)

Overprinting Plumes

- On a technical level, the process and data gather are the same and any of the tools outlined in the guidance document can be used regardless of the PRCR.
- If dealing with the plumes separately, lines of evidence can be used to distinguish what contamination is from what plume and can be monitored and remediated accordingly.
- Once the Remedial Action Permit has been issued, Section 5.5 outlines what steps can be taken in cases with overprinting plumes.

Discharge Scenario	Action	Terminate RAP when
<p><u>New discharge detected</u></p> <ul style="list-style-type: none"> - does not affect protectiveness of the remedy - does not affect ability to sample - does not affect ability to meet RAP-GW objectives 	<p>Continue on typical RAP-GW path</p>	<p>Applicable standards are met</p>
<p><u>New discharge detected</u></p> <ul style="list-style-type: none"> - Discharge impacts ability to meet permit objectives. - Modifications can be made to meet RAP-GW objectives 	<p>Make modifications to RAP-GW</p>	<p>Applicable standards are met</p>
<p><u>New discharge detected</u></p> <ul style="list-style-type: none"> - Impact from new discharge is severe - Can't meet permit objectives - There is a good amount of RAP-GW monitoring data from the initial discharge and good fate and transport modeling 	<ul style="list-style-type: none"> - Cannot sample due to impact from new discharge - Request RAP-GW abeyance - Continue to pay permit fees and submit Biennial Certs - Develop Lines of Evidence to extrapolate when initial plume would have met applicable standards 	<p>When the initial plume is extrapolated to meet applicable standards</p>
<p><u>New discharge detected</u></p> <ul style="list-style-type: none"> - Impact from new discharge is severe and covers footprint of initial discharge - Can't sample or meet permit objectives - There is a lack of RAP-GW monitoring data for the initial discharge and inadequate lines of evidence to extrapolate time when applicable standards would be met 	<ul style="list-style-type: none"> - Request RAP-GW abeyance - Cannot sample - Continue to pay permit fees and submit Biennial Cert - Wait till remediation of 2nd discharge is completed 	<p>Once 2nd discharge is remediated and it is possible to demonstrate that the initial (1st) discharge is remediated</p>