



JOINT PERMIT FOR USE OF AN ALGICIDE, HERBICIDE OR FISH CONTROL CHEMICAL IN WATERS OF THE COMMONWEALTH

PERMIT NO.: 0919830

In compliance with the provisions of Pennsylvania's Clean Streams Law, as amended, 35 P.S. §§ 691.1 *et seq.*, the regulations at 25 Pa. Code § 91.38, and the Fish and Boat Code, 30 Pa. C.S. § 2504(a)(1),

**Adrian Worrell
P. O. Box 10549
Greensboro, NC 27532**

is authorized to use the algicide(s), herbicide(s) or fish control chemical(s) ("pesticides") specified below, in accordance with the conditions and requirements set forth herein.

THIS PERMIT SHALL BECOME EFFECTIVE ON OCTOBER 18, 2019

Municipality:	<u>Upper Makefield Township</u>	County:	<u>Bucks</u>
Water Body:	<u>Commital Shelter</u>	Total Area:	<u>0.44 acre</u>
Receiving Stream:	<u>UNT to Hough's Creek</u>	Avg Depth:	<u><1 foot</u>

TREATMENT INFORMATION					
Chemical	Maximum Dose	Treatment Area	Treatment Depth	Amount Each Treatment	No. Annual Treatments
Captain	0.6 gal/af	0.44 acre	<1 foot	0.26 gal	6
Tribune	2.0 gal/acre	0.44 acre	<1 foot	0.88 gal	6
Clearcast	1 gal/acre	0.44 acre	<1 foot	0.44 gal	6
Rodeo	6 pt./acre	0.44 acre	<1 foot	0.33 gal	6

Municipality:	Upper Makefield Township	County:	Bucks
Water Body:	South Retention	Total Area:	0.18 acre

TREATMENT INFORMATION					
Chemical	Maximum Dose	Treatment Area	Treatment Depth	Amount Each Treatment	No. Annual Treatments
Captain	0.6 gal/af	0.18 acre	<1 foot	0.108 gal	6
Tribune	2.0 gal/acre	0.18 acre	<1 foot	0.36 gal	6
Clearcast	1 gal/acre	0.18 acre	<1 foot	0.18 gal	6
Rodeo	6 pt./acre	0.18 acre	<1 foot	0.135 gal	6

Municipality:	Upper Makefield Township	County:	Bucks
Water Body:	Pump House Pond	Total Area:	0.33 acre

TREATMENT INFORMATION					
Chemical	Maximum Dose	Treatment Area	Treatment Depth	Amount Each Treatment	No. Annual Treatments
Captain	0.6 gal/af	0.33 acre	<1 foot	0.19 gal	6
Tribune	2.0 gal/acre	0.33 acre	<1 foot	0.66 gal	6
Clearcast	1 gal/acre	0.33 acre	<1 foot	0.33 gal	6
Rodeo	6 pt./acre	0.33 acre	<1 foot	0.24 gal	6

Municipality:	Upper Makefield Township	County:	Bucks	
Water Body:	NW Retention	Total Area:	0.43 acre	

TREATMENT INFORMATION					
Chemical	Maximum Dose	Treatment Area	Treatment Depth	Amount Each Treatment	No. Annual Treatments
Captain	0.6 gal/af	0.43 acre	<1 foot	0.25 gal	6
Tribune	2.0 gal/acre	0.43 acre	<1 foot	0.86 gal	6
Clearcast	1 gal/acre	0.43 acre	<1 foot	0.43 gal	6
Rodeo	6 pt./acre	0.43 acre	<1 foot	0.32 gal	6

Municipality:	Upper Makefield Township	County:	Bucks	
Water Body:	NE Retention	Total Area:	0.83 acre	

TREATMENT INFORMATION					
Chemical	Maximum Dose	Treatment Area	Treatment Depth	Amount Each Treatment	No. Annual Treatments
Captain	0.6 gal/af	0.83 acre	<1 foot	0.49 gal	6
Tribune	2.0 gal/acre	0.83 acre	<1 foot	1.66 gal	6
Clearcast	1 gal/acre	0.83 acre	<1 foot	0.83 gal	6
Rodeo	6 pt./acre	0.83 acre	<1 foot	0.62 gal	6

Municipality:	Upper Makefield Township	County:	Bucks	
Water Body:	NE Forebay	Total Area:	0.5 acre	

TREATMENT INFORMATION					
Chemical	Maximum Dose	Treatment Area	Treatment Depth	Amount Each Treatment	No. Annual Treatments
Captain	0.6 gal/af	0.5 acre	<1 foot	0.3 gal	6
Tribune	2.0 gal/acre	0.5 acre	<1 foot	1.0 gal	6
Clearcast	1 gal/acre	0.5 acre	<1 foot	0.5 gal	6
Rodeo	6 pt./acre	0.5 acre	<1 foot	0.37 gal	6

Municipality:	Upper Makefield Township	County:	Bucks	
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Water Body:	Maintenance Facility		Total Area:	1.01 acre	
TREATMENT INFORMATION					
Chemical	Maximum Dose	Treatment Area	Treatment Depth	Amount Each Treatment	No. Annual Treatments
Captain	0.6 gal/af	1.01 acre	<1 foot	0.60 gal	6
Tribune	2.0 gal/acre	1.01 acre	<1 foot	2.02 gal	6
Clearcast	1 gal/acre	1.01 acre	<1 foot	1.0 gal	6
Rodeo	6 pt./acre	1.01 acre	<1 foot	0.75 gal	6

Municipality:	Upper Makefield Township		County:	Bucks	
Water Body:	Irrigation		Total Area:	0.81 acre	

TREATMENT INFORMATION					
Chemical	Maximum Dose	Treatment Area	Treatment Depth	Amount Each Treatment	No. Annual Treatments
Captain	0.6 gal/af	0.81 acre	<1 foot	0.48 gal	6
Tribune	2.0 gal/acre	0.81 acre	<1 foot	1.6 gal	6
Clearcast	1 gal/acre	0.81 acre	<1 foot	0.81 gal	6
Rodeo	6 pt./acre	0.81 acre	<1 foot	0.6 gal	6

THIS PERMIT IS ISSUED UNDER THE FOLLOWING CONDITIONS:

1. The permittee shall use pesticides strictly as described by the product label. Chemical applications shall be performed in accordance with the manufacturer's label directions, existing pesticide use laws, and any conditions imposed by local or state agencies.
2. The permittee may treat a standing body of water (i.e., pond, lake, reservoir, etc.) only when there is minimal or no outflow occurring or expected.
3. The permittee shall not treat Fish and Boat Commission approved stocked trout waters between March 1 and June 15.
4. The permittee shall not treat bass waters during the first week of the Commonwealth inland waters harvest season for bass (the first Saturday after June 11 through the following Saturday).
5. If copper sulfate will be used, the permittee shall not apply copper sulfate at a dose exceeding 0.5 mg/L Cu²⁺ or 1.36 lbs CuSO₄/acre-foot where the total hardness of the water body is less than 50 mg/L CaCO₃. Where total hardness exceeds 50 mg/L CaCO₃, the permittee shall not exceed a dose of 1.0 mg/L Cu²⁺ or 2.27 lbs CuSO₄/acre-foot.
6. The permittee shall not treat water bodies containing stocked or wild trout with copper in excess of 0.1 mg/L Cu²⁺.
7. The permittee shall treat water bodies containing very high plant densities separately, in sections, to prevent suffocation of fish. Monitoring of dissolved oxygen is recommended under these conditions.
8. The permittee is responsible for all damages to aquatic life and human health resulting from treatment.
9. Failure of the permittee or agents acting on behalf of the permittee to follow the approved specifications, conditions and requirements immediately renders this permit null and void.
10. If applicable, treatments must also comply with the terms and conditions of NPDES permit coverage.
11. The permittee shall comply with pesticide licensing requirements established by the Pennsylvania Department of Agriculture for the applications approved under this permit.
12. This permit is valid for the treatment information identified above. The permittee shall submit a new application to amend this permit if any of the following changes are proposed:

- a. Changes to the water bodies being treated.
- b. Increases in the maximum dose or to the number of annual treatments for any water body.
- c. Changes in the pesticide(s) used for treatment, unless the new pesticide(s) contain the same active ingredient(s) and the same or lower percent composition of the ingredient in comparison to the pesticide(s) previously approved by DEP/PFBC.

APPROVALS		
For the Pennsylvania Fish and Boat Commission:		
<i>Heather Smiles</i>	Division Chief	10/10/2019
Heather Smiles	Title	Date
Additional Requirements: 		
For the Department of Environmental Protection:		
/s/	Environmental Program Manager	October 15, 2019
Thomas L. Magge	Title	Date
Additional Requirements: 		