

WHAT WE WILL PROVIDE

Our weekly maintenance visit will include a visual inspection, top up of the chemical reservoir with coagulant (chemical costs charged as per contract rate) and adjustment of the slow start system to

suit the site conditions. We will also test and record the listed-parameters with results forwarded to you on an inspection form.

pH	TESTING OF THE INFLOW/POND/DISCHARGE WATERS
TEMPERATURE	POND ONLY
TURBIDITY/ NTU	INFLOW/DISCHARGE ONLY
DISSOLVED ALUMINIUM	INFLOW/DISCHARGE ONLY

WHAT WE REQUIRE

+ Feedback of onsite information such as adverse weather conditions and any on site chemical usage likely to leach into pond (e.g. lime stabilisation can change pond pH which in turn may affect the flocculation process

+ Information with regards to changes in site runoff characteristics, which could be due to stripping site vegetation or revegetation etc

+ Maintenance of an all weather track to allow servicing of system etc



+ FLOCCULATION

SITE SEDIMENTATION CONTROL SHED

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RST ENVIRONMENTAL SOLUTIONS FLOCCULATION SHEDS AID IN THE REMOVAL OF SUSPENDED SOLIDS IN RUNOFF FROM A VARIETY OF ISOLATED AND DISTURBED SITES, I.E. CONSTRUCTION SITES, QUARRIES AND SUB-DIVISIONS. AS EVERY SITE TO BE TREATED IS DIFFERENT IN SIZE, RAINFALL, SOIL GEOLOGY, WE WILL CUSTOM MAKE YOUR FLOCCULATION SHED.

DUE TO THE UNKNOWN AMOUNT OF COAGULANT THAT WILL BE USED, YOU WILL RECEIVE A PROPOSAL FOR THE SITE WHICH WILL OUTLINE THE COSTS INVOLVED. THESE INCLUDE A MONTHLY RENTAL, CHEMICAL COST (RATE PER LITRE USED) AND A SET FEE FOR ANY EXTRA ONE-OFF VISITS.

INTRODUCTION TO THE FLOCCULATION PROCESS

Flocculation is the clumping together of particles to form a larger mass which in turn settles through the neutralisation of the electrical charge. The addition of a coagulant to water, followed by rapid mixing to disperse the coagulant, causes destabilisation of the colloidal suspension.

The subsequent reaction of these charged substances with charged colloids results in neutralisation of the electrical charges and permits contact between particles. This promotes formation and growth of flocculation or particle aggregations which are large enough to be removed by sedimentation.

POND DESIGN

When designing a chemically-dosed sedimentation pond: you must allow for the following differences from standard ponds;

- + The design of a single inlet structure to allow for dosing into the main flow (flume/chute)
- + Some turbulence to be created at dose point to aid in mixing
- + Provision of a suitable flat area to site floc shed

GETTING STARTED

First we determine the correct dose rate for your site, by taking samples of runoff water to the laboratory for testing. We establish which coagulant will achieve the best result and what is the optimum dose rate to achieve good sedimentation control with minimal impact on the receiving environment. With information on the total runoff area of the site to be treated also in hand, we custom make the "shed" (header tank,

An all-weather vehicle track must be provided so monitoring and topping up of coagulant is possible

displacement tank, chemical reservoir, dosing tray and slow start system) to suit your site.

The coagulant is proportionally-dosed by rain activation, so monitoring during the first few rain events is critical (we may need to adjust flow/dose rate by decreasing or increasing the catch tray accordingly). Once the system is running efficiently, we will provide regular monitor and maintenance.

