CLAIMS

1. A method of dredging comprising:

suspending dredging apparatus from a vehicle, the dredging apparatus comprising:

a chassis;

sediment agitating apparatus for disposal above a sediment layer on a waterbed, the sediment agitating apparatus comprising a fluid injector and a pump arranged to inject fluid through the fluid injector, the sediment agitating apparatus and pump being mounted directly on the chassis, wherein the fluid injector comprises one or more conduit, the conduit bearing a plurality of nozzles;

separately an extractor, the extractor being arranged to move agitated sediment away from the waterbed and above the dredging apparatus, the extractor comprising a conduit and a pump arranged to pump agitated sediment through the conduit, the extractor and pump being mounted directly on the chassis; and

a connector for connecting the sediment dredging apparatus to the vehicle;

disposing the dredging apparatus above, but not in contact with a waterbed to be dredged of sediment;

agitating the sediment with the sediment agitating apparatus;

extracting the sediment with the extractor;

suspending the extracted sediment underwater and into a higher water column above the sediment agitating apparatus; and

moving the dredging apparatus around the water;

wherein the sediment is transported and deposited away from an area being dredged by the natural movement of the water.

2. The method as claimed in claim 1, wherein the fluid injector is provided on an underside of the sediment agitating apparatus.

3. The method as claimed in claim 1 or claim 2, wherein the conduit of the extractor has a first opening disposed towards the underside of the sediment

dredging apparatus, and a second opening disposed at a highermost point on the sediment dredging apparatus.

4. The method as claimed in claim 3, wherein the conduit is frustoconical and wherein the second opening is wider than the first opening.

5. The method as claimed in any one of the preceding claims, wherein the pumps are powered with a power supply provided on the vehicle.

6. The method as claimed in any one of claims 1 to 4, wherein the pumps are powered with a power supply provided on the dredging apparatus.

7. The method as claimed in any one of the preceding claims, wherein the dredging apparatus and/or the vehicle further comprises a pilot to deflect debris encountered on the waterbed.

8. The method as claimed in any one of the preceding claims, wherein the vehicle further comprises a swell compensator, and wherein the swell compensator maintains the dredging apparatus at the same level above the waterbed.

9. The method as claimed in any one of the preceding claims, wherein the chassis comprises shock absorbing means.

10. The method as claimed in claim 9, wherein the shock absorbing means comprises runners mounted on an underside of the chassis.

11. The method as claimed in any one of the preceding claims, wherein the chassis comprises an open frame.

12. The method as claimed in any one of the preceding claims, wherein the chassis comprises opposed side panels, and one or more body panel disposed in parallel between the side panels, the body panel and side panels being joined by one or more cross member.

13. The method as claimed in claim 12, wherein the one or more cross member comprises the sediment agitating apparatus, and wherein the sediment agitating apparatus comprises one or more conduit comprising one or more outlet for injecting fluid, the sediment agitating apparatus being in communication with the one or more pump, which pump is in communication with an inlet, and wherein fluid in drawn in from a surrounding area.

14. The method as claimed in claim 12 or claim 13, wherein the one or more cross member comprises the extractor, wherein the extractor comprises one or

more conduit comprising inlets into which agitated sediment is drawn to be expelled, wherein the extractor is in communication with the one or more pump, wherein the pump is in communication with a conduit raised above the dredging apparatus to expel agitated sediment above the dredging apparatus in use.

15. Dredging apparatus for disposal above, but not in contact with, a waterbed to be dredged of sediment, the apparatus comprising:

a chassis;

sediment agitating apparatus for disposal above a sediment layer on the waterbed, the sediment agitating apparatus comprising a fluid injector and a pump arranged to inject fluid through the fluid injector, the sediment agitating apparatus and pump being mounted directly on the chassis, wherein the fluid injector comprises one or more conduit, the conduit bearing a plurality of nozzles;

separately an extractor, the extractor being arranged to move agitated sediment away from the waterbed and above the dredging apparatus, the extractor comprising a conduit and a pump arranged to pump agitated sediment through the conduit and suspend the extracted sediment underwater and into a higher water column above the sediment agitating apparatus, the extractor and pump being mounted directly on the chassis; and

a connector for connecting the sediment dredging apparatus to a vehicle.

16. Use of dredging apparatus as claimed in claim 15, wherein the use comprises:

connecting the dredging apparatus to a vehicle with the connector;

suspending the dredging apparatus above, but not in contact with a waterbed to be dredged;

extracting the agitated sediment with the extractor and suspending the extracted sediment underwater and above the extractor.