Allee, R.J. and J.E. Johnson, (1999), Use of satellite imagery to estimate surface chlorophyll a and Secchi disc depth of Full Shoals Reservoir, Arkansas, USA, *International Journal of Remote Sensing*, 20(6): 1057-1072.

- *Chlorophyll a, phytoplankton composition, Secchi disc depth, nitrate-nitrogen, orthophosphate and turbidity*
- *Landsat TM*
- *Went into depth about how each parameter was measured*
- *Correlation analysis suggested that chlorophyll a had the greatest relationship with Bands 2 and 3 (although it varied)*
- *Developed different models for different algal types, remote sensing algorithms for chlorophyll a monitoring are highly influenced by algal species compositions*

Baban, Serwan M.M., (1993), Detecting water quality parameters in the Normfolk Broads, U.K., using Landsat Imagery, *International Journal of Remote Sensing*, 14(7): 1247-1267.

- *Study area: The Norfolk Broads in England (shallow, wetland areas)*
- *Landsat TM*
- *Chlorophyll a, total phosphorus, suspended solid, salinity(chloride) concentrations, Secchi desk depth, and TM6 for temperature*
- *Discusses band ratios applicable for different parameters*
- *Concluded that ground reference data can be used in combination with satellite imagery to establish prediction regressions*
- *Very useful conclusion section*

Cairns, S.H., K.L. Dickson, and S.F. Atkinson, (1997), An examination of measuring selected water quality trophic indicators with SPOT satellite HRV data, *Photogrammetric Engineering and Remote Sensing*, 63(3): 263-265.

- *Three reservoirs in north Texas*
- *Chlorophyll a, pheophytin a, total suspended sediment, total dissorlved solids and turbidity*
- *Positive relationship b/w turbidity and chlorophyll a, weak relationship between total suspended solids and turbidity*
- *Turbidity: band 2, and similar relationships with band 3*
- *Chlorphyll a-band2*
- *Conical correlations studied for each parameter*
- *Found overall that satellite imagery was not practical as a tool for monitoring water quality, but found band 2 to be the most promising*

Fraser, R.N., (1998), Hyperspectral remote sensing of turbidity and chlorophyll a among Nebraska Sand Hills lakes, International Journal of Remote Sensing, 19(8): 1579-1589.

Fraser, R.N., (1998), Multispectral remote sensing of turbidity among Nebraska Sand Hills lakes, International Journal of Remote Sensing, 19(15): 1579-1589

Gitelson, A., G. Garbuzov, F. Szilagyi, K-H. Mittenzwey, A. Karneili and A. Kaiser, (1993) Quantitative remote sensing methods for real-time monitoring of inland waters quality. *International Journal of Remote Sensing*, 14(7): 1269-1295. *

- *20 water bodies in former USSR, Hungary, Germany and Bulgaria*
- *Modelled the rlationship between upwelling radiance spectra and experimentally-determined water quality constituent concentrations*

- *Looking at several parameters: phytoplankton, chlorophyll-a, dissolved organic matter, and suspended matter*
- *Attributes reflectance and absorption at different wavelengths to the different parameters*
- *Instrument: spectroradiometer, then models applied to MSS*
- *For chlorophyll-a concentrations: MSS6/MSS4+MSS5+MSS6 most appropriate*
- *Conclusion: inland water quality monitoring from space can be performed by determining the radiance in specific wavelengths: 480, 520, 560, 630, 675, 685, and 710nm.*

Goodin, D.G., J.A. Harringotn, M.D. Nellis, and D.C. Rundquist, (1996), Mapping reservoir turbidity patterns suing SPOT-HRV data, *Geocarto International* , 11(4):3011-3016

Han, Luoheng and D.C. Rundquist, (1997), Comparison of NIR/RED ratio and first derivative of reflectance in estimating algal-chlorophyll concentration: a case study in a turbid reservoir. *Remote Sensing of Environment*. 62:253-261.

- *Why this ratio? The NIR/red ratio is relatively independent of suspended sediment concentration, whereas the NIR-red difference is not (concluded from a previous study)*
- *They are only looking at amounts of algal chlorophyll*
- *Branched Oak Lake, NW of Lincoln, Nebraska*
- *Instrument: Spectron Engineering SE-590 spectroradiometer*
- *Not possible to estimate algal-chlorophyll concentration by using only reflectance at an individual wavelength; NIR/red ratio was not a good predictor of algal-chlorophyll concentration in their case except one instance.*

Khorram, S, and H.M. Cheshire, (1985), Remote sensing of water quality in the Neuse River Estuary, North Carolina, *Photogrammetric Engineering and Remote Sensing*, 51(3): 329-341.

Kongratyev, K.Y., D.V. Pozdnyakov, and L.G. Pettersson, (1998), Water quality remote sensing in the visible spectrum, *International Journal of Remote Sensing*, 19(5): 957-979.

Lathrop, R.G. and T.M. Lillesand, (1986), Use of Thematic Mapper data to assess water quality in Green Bay and Central Lake Michigan, *Photogrammetric Engineering and Remote Sensing*, 52(5): 671-680.

Matthews, A.M., A.G. Duncan and R.G. Davison, (2001), An assessment of validation techniques for estimating chlorophyll-a concentration from airborne multispectral imagery. *International Journal of Remote Sensing.* 22(2&3): 429-447.

- *East/central coast of England*
- *Instrument: CASI*
- *Pre-processing (radiometric corrections, rectification)*
- *The blue/green ratio was shown to be inappropriate*
- *They spent a lot of time looking at errors incurred using the two techniques in order to establish limitations of the techniques*
- *Low random errors shown both within the training dataset and when transferring the algorithms to the validation dataset suggest that only small amounts of training data either from lab samples or continuous track flurormeter will be rwqured to convert imagery on each sampling occasion*

Mayo,M., A. Gitelson, Y.Z. Yacobi, and Z. Ben-Avraham, (1995), Chlorophyll distribution in Lake Kinneret determined from Landsat Thematic Mapper data. *International Journal of Remote Sensing*, 16(1):175-182.

Nellis, D.M. J.A. Harrington, and J. Wu, (1998). Remote sensing of emporal and spatial variation in pool size, suspended sediment, turbidity, and Secchi depth in Tuttle Creek Reservoir, Kansas: 1993, *Geomorphology*, 21: 281-293.

- *Masked out water and used the Matrix program to compare remaining water areas (after smaller areas were eliminated.*
- *Covers the 1993 flood*

Ramsey, E.W., and J.R. Jensen, H. Mackey and J. Gladden, (1992), Remote sensing of water quality in active to inactive cooling water reservoirs. *International Journal of Remote Sensing,* 13(18): 3465-3488.

- *Savannah Rive Site in South Carolina, three on-ste nuclear reactor cooling reservoirs*
- *MSS*
- *Water samples were analyzed for chlorophyll a, b, c; total suspended particles, turbidity, particle size, total organic content, filtered water absorption of light, and fluorescence.*
- *Went into more depth than most articles about how each parameter was measured*

Ritchie, J.C., C.M. Cooper, and F.R. Schiebe, (1990), The relationship of MSS and TM digital data with suspended sediments, chlorophyll, and temperature in Moon Lake, Mississippi, *Remote Sensing of Environment*, 33:137-148

Schiebe, F.R. and J.A. Harrington, Jr., (1992), Remote sensing of suspended sediments: the Lake Chicot, Arkansas project, *International Journal of Remote Sensing,* 13(8): 1487-1509.

- *Landsat MSS*
- *Expanded 12 years of coinciding satellite data and water quality observations*
- *Converted to reflectance: the model is in the paper*
- *Several models for determining suspended sediment from reflectance*

Tasan, S., (1998), A procedure to determine the particulate content of shallow water from Thematic Mapper data, *International Journal of Remote Sensing*, 19(3): 557-562.

Verdin, J.P. (1985), Monitoring water quality conditions in a large western reservoir with Landsat Imagery, *Photogrammetric Engineering and Remote Sensing*, 51(3):343-353.