Louth Coastal LEAP

Second Annual Review

April 2001





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Foreword

This document provides a second annual progress update on the Louth Coastal Local Environment Agency Plan (LEAP), which was published in October 1998. For a full understanding of the issues and actions, this should be read alongside the LEAP itself.

This full Annual Review is primarily intended for internal use, and to provide detailed information to our key customers. In order to maximise our outreach efforts, a newsletter has also been produced, summarising progress in the Louth Coastal LEAP area and highlighting major achievements and future partnership opportunities. This has been distributed to a wider audience, including parish councils and local interest groups, with the full document available on request.

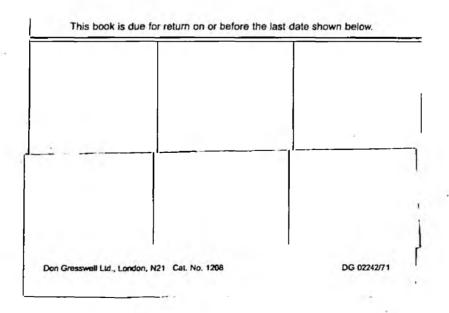
Reviews of the Louth Coastal LEAP will continue to take place on an annual basis, providing a regular opportunity to incorporate new issues and actions into the Plan. Feedback is however welcomed at any time.

If you have any comments or queries, please contact:

LEAPs Officer

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ssue	Action	Other Partners	Start Date	Planned Finish Date	Lifecycle	Progress
1 There is a limited understanding of the groundwater hydrogeology south of Louth.	Carry out further investigation and groundwater modelling.		01/04/98	31/03/03	Underway	Minor investigation work is ongoing, with a major modelling review due to begin in April 2001.
2a Changes in land drainage and agricultural practices have reduced habitat diversity and the landscape character of rivers, their surrounding flood plains and the coastal marsh area.	Collaboration with landowners to: provide a range of landscape features; restore wetland habitats; and create buffer zones where appropriate by					

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2a (cont.)	i) Identification of suitable sites.	English Nature County Council MAFF IDBs Wildlife Trusts	01/04/98	Ongoing	Underway	Sheils Flynn Ltd (chartered landscape architects) and The Environment Practice (ecologists) have been working with the Hubbards Hills Steering Committee to prepare a conservation plan. The plan has now been produced after comments from the Agency, together with other key statutory authorities, the steering group and the local community. Information boards have been installed as a result and no other improvements are needed.
						The Louth Canal routine fishery survey has also been completed and will form the background for future Agency habitat restoration works. For example a fish refuge has been installed on the Louth Canal at Thoresby Washland, consisting of floating reed mattresses to provide overhead cover for the fish, thus improving their habitat. The refuge structures consist of a number of circular floating plastic rings enveloped with polypropylene netting and planted with various native marginal reeds and rushes. The raft bioplateaus provide important overhead cover for fish and
						provide a safe habitat for wildlife. In addition the rafts present an excellent biofilter with a high particulate filtration and nutrient removal capacity.
	ii) Investigation and assessment of environmental impact.	County Council English Nature Wildlife Trusts MAFF	01/04/00	31/03/01	Underway	As above.

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2a (cont.)	iii) Taking appropriate action.	County Council IDBs English Nature Wildlife Trusts MAFF	Future	Ongoing	Started early	Following the success of the Three Towns Rural Challenge bid, in principal funding of £90k (East Midlands Development Agency) and £80k (European Regional Development Fund) was allocated towards a potential £200k river improvement project on the River Steeping, Wainfleet. The project will focus on improving angling facilities and will involve the construction of approximately 50 fishing pegs together with associated car parking areas and environmental enhancements including adjacent wetland/floodplain restoration.
		24 y	2/30			Work commenced in February 2000. Phase 1 of the project, completed in May 2000, consisted of the development of wet margins using over 2000m of coconut fibre which was then planted with several thousand aquatic plants, tree planting, and the creation of 50 high quality angling pegs, plus parking facilities. Phase 1 has been a great success and was celebrated with a weekend of activities, including a junior fishing match.
	**			¥		Phase 2, which will assess the feasibility of provision for disabled anglers, such as the creation of three disabled angling pegs, will be underway shortly.

Issue	Action	Other Partners	Start Date	Planned Finish Date	Lifecycle	Progress
2a (cont.)	Identify sites where gravel bars and riffles could be installed without detriment to other environmental aspects, liaise with landowners, and carry out installation.	District Councils Land- owners	01/04/98	31/03/00	Completed On Time	The Louth Canal routine fishery survey has been completed. The results form the background for future Agency habitat restoration works within the associated river catchment areas. One outcome of the study has been the installation of the novel reed mattresses at Thoresby Washland on the Louth Canal described above.
	Install gravel bars and riffles in the River Lud through Hubbards Hills.	1		,		The above survey suggests that this action is no longer required.
	Improve operational management of Main Rivers by:-					
	Identifying problem sites.	Land- owners	01/04/98	31/03/00	Over- running	Liaison between Agency functions and landowners is ongoing. This process aims to decide the most suitable management option for both routine maintenance of main river stretches and for new river works.

Issue	'Action	Other Partners	Start Date	Planned Finish Date	Lifecycle	Progress
co pri sy riv m pri E g p D L M P fo to in an	Implementing continued and progressive sympathetic river maintenance programmes.	Land- owners	01/04/98	Ongoing	Underway	As above.
	Encouraging good grazing practice.	Land- owners	01/04/98	Ongoing	Underway	As above.
	Develop Water Level Management Plans for the following areas to assess the impact adjacent to, and	IDBs (lead partner) MAFF English Nature Wildlife Trusts Land-	01/04/98	31/03/00	Over- running	Water level management plans which encompass the Saltfleet and Theddlethorpe Dunes, Tetney Blow Wells (Loop Drain), and Stocks Drain have been developed by local drainage boards. The plans aim to provide a basis for the better understanding of local wetland habitats. Consultation on the plans took place during March 2000. The plans have now been completed and are being implemented at the relevant sites.
	within,statutory and local sites of conservation	owners		j.		
	importance:- i) Stocks Drain/Braytoft Meadows ii) Tetney Blow Wells iii) Saltfleetby- Theddlethorpe Dunes.			•		

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2b Alien American Signal Crayfish are believed to have colonised the River Lymn.	Develop a strategy to contain or remove the Signal Crayfish in the affected pond.	English Nature Land- owners	01/04/98	31/03/99	Complete	An assessment examining the various practical means for the removal of crayfish from stillwaters has been completed by Agency staff. At present no acceptable practicable actions have been identified for the Agency in controlling this problem, however, work is continuing as detailed below.
	Appraise and if possible remove the immediate threat of the non-native crayfish from the site adjacent to the River Lymn.	English Nature Land- owners	01/04/98	31/03/01	Underway	A survey of crayfish populations will be carried out on the River Lymn in spring 2001. If no alien crayfish are found it will be assumed that they have not yet escaped from the above pond and extra effort will be directed to containing them.
2c On the Rivers Lymn and Steeping there are a number of spray irrigation licences that do not have adequate conditions to protect the water environment.	Encourage the construction of environ-mentally sympathetic winter storage reservoirs.	Local Author- ities National Farmer's Union Farmers	01/04/98	Ongoing	Underway	This is an ongoing process good practice in sustainable water management is encouraged. The Agency is also currently awaiting new government legislation (Water Act) that will provide greater powers to act upon this issue. We are also pursuing opportunities to install winter storage reservoirs through the recently introduced Rural Development Plan (Rural Enterprise Scheme). This issue will also be addressed through Catchment Abstraction Management Strategies (CAMS). CAMS will be developed from spring 2001 and will clearly spell out and consult on sustainable abstraction policy on a catchment basis. The CAMS are likely to include catchment conditions, time limits to be applied to licences and river flow objectives. Development for Louth Coastal CAMS will begin in April 2004.

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2c (cont.)	Persuade abstractors to adopt new level/flow conditions on summer spray irrigation abstraction licences.	Abstract- ors	01/04/98	Ongoing	Underway	This is an ongoing process which is carried out as opportunities arise. CAMS will also address this action in the future. Good practice and sustainable water use, is meanwhile encouraged.
	Adoption of a proactive policy of reducing licensed		01/04/98	Ongoing	Underway	As above.
3	quantities by requiring any existing summer					
	licences to be traded in as a condition of granting winter storage licences.					·

İssue	Action	Other Partners	Start Date	"Planned Finish Date	Lifecycle	Progress
2d There is concern that abstraction from the Chalk aquifer is leading to depleted spring flows, and there is limited understanding of the linkages between river flow regimes and water needs to sustain river life.	Carry out investigations / studies to determine the requirements for flow in spring fed streams in the catchment following the establishment of ecological targets for flora and fauna and amend abstraction licences accordingly.	AWS	01/04/98	31/03/02	Underway	The "LIFE" methodology is the subject of national R&D. When this work is complete it should be possible to accurately define flow needs for watercourses where hydrological and ecological data are available. The "LIFE" R&D has two parts. Part 1, the scoping study, is complete. Part 2, the implementation of key research, is currently being undertaken and should be complete in 2001. The total budget for this work is £70k. The methodology will also feed into the model investigation of groundwater hydrogeology due to begin in April 2001. LIFE will however only show flow stress where there is at least some riffle habitat, and not on wetlands or where the substratum is silt. The Waithe Beck is one of the sites to be investigated as part of the Agency's National Environment Programme (2001-2005). This should provide a greater understanding of the impacts of abstraction in this area. The Agency is also currently awaiting new government legislation (Water Act) that will provide the powers to amend the relevant abstraction licences.
3a Fish movement between river stretches is limited by river control structures.	Identify sites with structures currently impeding fish.		01/04/98	31/03/99	Completed On Time	An internal report has been completed which details the present use/status of each riverine structure, thus effectively preventing the passage of migratory species. The document examines the various options for potentially improving these structures for migratory fish.

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3a (cont.)	Develop a plan for the installation of fish passes on control structures, or removal of redundant structures.		01/04/99		Ongoing	As above. Works at the sites identified by the above action are undertaken as opportunities arise (i.e. as structures are removed or refurbished), for example replacement of structures with riffles which will improve fish habitat whilst maintaining the channel gradient.
	Implement an Action Plan.		01/04/99		Ongoing	As above.
4a The discharge consent conditions for a number of Sewage Treatment Works' (STW) discharges will not protect downstream	Review flow data upstream of discharges to confirm dilution flows; re-calculate protective		01/04/98	31/03/00	Over- running	This has been completed for sewage treatment works at Louth, Legbourne, Manby and Tetney and this action may be taken up more generally as part of the Habitats Directive Review. Further investigations into the above sites will also be carried out as part of the Habitats Directive Review. Work is continuing to assess consent conditions and apply Piver Monda. Consents for those sites as not of the AMP2.
water quality if significant development occurs within the catchment.	consent conditions as required; and review the rate of development.	AMO	04/04/00			River Needs Consents for these sites as part of the AMP3 process. Information will be collected on sites needing investment, and will be fed into the AMP4 programme.
	Identify relevant STWs as priorities for future investment under the third Asset Management Plan (AMP3).	AWS	01/04/98	31/03/00	Completed on time	Further investment is planned at the following STWs in order to protect downstream water quality objectives: Louth, Alford, Manby, Spilsby and Saltfleet. This work is planned to take place within the Third Asset Management Plan (AMP3) period (2000-2005).

ssue	Action	Other Partners	Start Date	Planned Finish Date	Lifecycle	Progress
4b Inadequate local sewerage systems In some villages result in localised	Complete accepted schemes at: Station Road,	AWS (lead partner) Parish	01/04/98	31/03/02	Underway	According to AWS, the status of sewerage schemes as of November 2000 was as follows: Station Road, Tetney – finished
pollution and/or public health problems.	Tetney; Anderby; Saltfleet St Peter; South Reston.	Councils			÷	Anderby - due to start 2001 Theddlethorpe All Saints – accepted Tetney Lock – pending Fulstow Mill Way – accepted Great and Little Carlton Parish – pending
	Count region.				41 31-	South Somercotes accepted Gayton-le-Marsh accepted
÷-			·			More information on accepted sites and start dates will be available from AWS in early 2001.
4c Nutrient enrichment of water bodies in the Plan area impacts on water quality and affects flora and fauna and other uses of water e.g. navigation, amenity and fishing. River	Install phosphate removal at Louth STW in order to comply with the UWWTD.	AWS (lead partner)	01/04/98	31/03/00	Completed On Time	AWS have completed a planned two-year improvement scheme (1999/2000) at this works. Iron dosing maintained phosphate concentrations below 1ppm in the final effluent. By the end of 1999 a fifth final settlement tank had been built, thus increasing the works' throughput capacity by 25%. Additionally, the walls of the existing tanks were raised by 300mm, improving throughput capacity by a further 10%.
Ecosystem quality targets can be compromised.						As of November 2000, Louth STW remained compliant on phosphate removal and will have a River Needs Consent by March 2001 as part of the AMP3 programme (i.e. the consent conditions will be tightened to further protect the needs of the river).

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4d Routine biological and chemical monitoring has revealed a problem with water quality on the stretch of the Louth Canal downstream of Louth to Alvingham footbridge.	Undertake improvements to Louth sewerage system.	AWS (lead partner)	01/04/98	31/03/00	Completed On Time	This scheme, the biggest of its kind in the country, has been completed at a cost of £2.7m. The work included re-laying of significant lengths of foul sewer serving the town so that a number of emergency and storm overflows to the river could be closed. In addition, a new storm tank has been installed and means that excess flows can be stored until the abatement of bad weather, whereupon the water is returned to the foul sewer and treated at the sewage treatment works in the normal fashion. Electronic water quality monitors have been installed since April 2000 to assess the quality of the canal, and a report will be produced following a suitable monitoring period. Any further improvements will be identified and agreed as part of AWS's AMP3 programme.
	Seek improvements to Louth Sewage Treatment Works through AMP3.	AWS	01/04/00	31/03/05	Underway	A River Needs Consent is to be issued for Louth STW as part of the AMP3 programme as above. Investigations will be carried out following the completion of the Louth Town Scheme and further investment will be targeted as necessary. Works are scheduled for completion during the AMP3 period (2000-2005).
4e Salt water intrusion into East Coast streams can affect water quality.	Improve current monitoring system.		01/04/98	31/03/02	Underway	Historical and current data now available for trend analysis suggests that saline intrusion has been greatly reduced by increased river flows. This may however still be an issue in terms of fisheries in drought years and further studies into saline intrusion on the East Coast are programmed for 2001.
	Develop a proactive saline intrusion monitoring strategy.	IDBs AWS	01/04/98	Ongoing	Underway	Monthly routine monitoring is carried out on Main Rivers by the Agency as part of the chemical sampling network.

Lisue.	Action	Other Partners	Start Date	Planned Flnish Date	Lifecycle	Progress
4f The proposals by the Louth Navigation Trust to restore the Louth Navigation are constrained by water resources, water quality, flood defence and environmental concerns.	Produce a feasibility study to assess the impacts, development needs and opportunities of canal restoration.	Louth Navig- ation Trust (lead partner) County Council District Councils Ground-	01/04/98	31/03/00	Over- running	A significant amount of funding has been successfully secured and partners have completed extensive refurbishment works to the warehouse buildings at River Head. These include the creation of a visitor centre, meeting rooms and other amenities. Further funding is currently being sought to complete the feasibility study into the impacts and development needs of the navigation proposals. Results from a pre-feasibility study investigating flood defence standards on the River Lud/Louth Canal will be fed into the studies being carried out by the Louth Navigation
4g The ability to provide timely flood warnings to property at risk in Louth is hampered by the speed of response of the Lud to heavy rainfall.	Investigate alternative methods of identifying and warning of flood risks.	work Trust	01/04/98	31/03/01	Underway	Trust and East Lindsey District Council. Two flood warning sirens owned by Lincolnshire County Council and operated by the emergency plannning department are located in Louth. These existing public warning systems (sirens) have been assessed to determine their effectiveness in terms of reliability and location. A study to investigate the feasibility of auto-operation of the sirens has been completed and suggests that this cannot be economically justified, however, further investigations will be carried out to see if a viable option can be found.
						A recent pre-feasibility study investigating flood defence standards on the River Lud/ Louth Canal has highlighted the need for a futher detailed study in selected areas.

lssue	Action	Other, Partners	Start Date	Planned Finish Date	Lifecycle	Progress
5a Flood protection provided to the coastal strip between Saltfleet Haven and North Coates Point may not meet Agency/MAFF standards.	Review existing standards of service.	MAFF	01/04/98	31/03/00	Completed On Time	The survey of existing defences has been completed. In order to identify the MAFF priority score and confirm viability for inclusion in the Long Term Plan, pre-feasibility studies for the Saltfleet Haven to Donna Nook and Donna Nook to Northcoates sea defences are also underway. A draft report has been produced and is currently subject to internal consultation, but the pre-feasibility study suggests that some stretches of the tidal defences are below the indicative standard.
	Promote improvements where justified.	MAFF English Nature	Future	Future	Pending	Formulation of a sea defence strategy, in line with the recommendations of the Shoreline Management Plan (SMP), is underway and is due to report in early 2001. This was originally scheduled for 99/00 but has been delayed due to a lack of funding. Any improvements will be based on this study.
5b The long-term capability of Croft Lane Pumping Station, Wainfleet and the old Chapel St Leonards pumping stations, to discharge flood waters, may not meet Agency standards.	Determine existing standards of service.	MAFF	01/04/05	31/03/07	Pending	Funding shortfalls have postponed this action. The projects have been re-prioritised and moved back in the programme to 2005/06 and 2006/07 respectively.

Issue	Action	Other Partners	Start Date	-Planned -> Finish - Date	Lifecycle	Progress
5b (cont.)	Promote works to maintain appropriate standards of drainage and flood protection.	MAFF	01/04/05	31/03/08	Pending	These actions have been postponed as above.
5c The condition of a length of flood bank along the Waithe Beck may not meet Agency /MAFF standards.	Carry out investigations to determine the structural condition of the defence and areas at risk of flooding.	MAFF Land- owners	01/04/07	31/03/08	Pending	Funding shortfalls have postponed this action. The projects have been re-prioritised and moved back in the programme to 2007/08. Survey work is now being planned for a prefeasibility study.
	If required seek to promote appropriately justified works.	MAFF Land- owners	01/04/07	31/03/08	Pending	Funding shortfalls have postponed this action as above.
5d Flood protection provided on the Woldgrift Drain may not meet Agency /MAFF standards.	Carry out investigations to review the standard of defence along the Woldgrift Drain and recommend actions.	IDBs MAFF	01/04/02	31/03/03	Pending	Funding shortfalls have postponed these works (originally scheduled for 00/01), although investigations are scheduled for 02/03. In order to identify the MAFF priority score and hence confirm viability for inclusion in the Long Term Plan, however, a draft pre-feasibility study for the Woldgrift Drain has been completed and the final report is expected in summer 2001.
	Undertake improvement works if appropriate.	MAFF	Future	Future	Pending	This is dependent on the above action.

Issue-	Action	Other Partners	Start Date	Planned Finish Date	Lifecycle	Progress
5d (cont.)	Assess the structural condition of the Alford culvert.	MAFF	01/04/01	31/03/02	Pending	This action has been moved forward one year to begin 2001.
	Undertake remedial work if appropriate.	MAFF	Future	Future	Pending	This is dependent on the above action.

Issue	Action	Other Partners	Start Date	Planned Finish Date	Lifecycle	Progress
5e Under certain conditions windblown sand may leave the beach and be deposited in urban areas.	Continue to implement the Agency's Sand Management Strategy produced to reduce the volumes of sand blowing off the beach	Parish Councils District Councils	01/04/98	Ongoing	Underway	Initial nourishment of the beaches was completed in 1999 and sand fencing erected in urban areas susceptible to windblown sand problems. Maintenance of the fencing is ongoing and the mechanical movement of sand which has built up along sea walls is being undertaken where appropriate. Following a successful campaign in 1999, the Agency negotiated a further 5-year dredging programme with contractors running from April 1 st 2000.
	by erecting sand baffles and recycling sand accumulation where necessary.			· ·		the risk of overtopping, sea wall damage and accelerated erosion. Following three days of easterly gales in April, an unprecedented volume of sand also had to be removed from the sea defences between Mablethorpe and Skegness. Sand was returned to the beach and beach levels adjacent to the sea defences were reduced. In order to maintain the level of protection required between Mablethorpe and Skegness, works during 2000 concentrated on the Boygrift, Vicker's Point and Trunch Lane areas. These were completed by the end of July. Wind-blown sand has also been removed from the defences at Sutton-on-Sea, and dune fencing work has been undertaken at Sutton-on-Sea, Mablethorpe, Chapel St Leonards, Huttoft and Ingoldmells.
-					4	A scheme of kidding works (planting of hawthorn prunings) has also been proposed for 2001. This will sustain the sand dune sea defences at Mablethorpe as the kidds will trap windblown sand thereby building up the beach level along the dune frontage.
	,				ī.	Discussions with the Lincshore Renourishment Group will be taking place in the near future to match strategic needs for 2001 with available funding. Work is meanwhile ongoing and is mainly carried out in spring, dependant on the strength, duration and direction of storms.

Issue	Action	Other Partners	Start Date	Planned Finish Date	Lifecycle	Progress
6a Unauthorised disposal of waste from caravan sites takes place within the Plan area.	Enforce waste management legislation and educate the public.	Local Author- ities Site Operat- ors	01/04/98	Ongoing	Underway	The principal offender has been apprehended and a formal caution has now been issued. This is no longer perceived as a pressing issue but will be kept under review should further problems arise in the future.
6b Odours from Kenwick Landfill site have caused local complaint.	Review gas control measures at the site.	Linc- waste	01/04/98	Ongoing	Underway	A higher capacity flare was installed in November 1999 and has demonstrated the site's ability to produce sufficient gas to be considered for electricity generation under the Non-Fossil Fuel Obligation of the 1989 Electricity Act. (Section 32).
	Complete phase 1 of the site.	Linc- waste	01/04/98	31/03/99	Completed On Time	Phase 1 of Kenwick Landfill was completed and capped at the end of 1997, and Phase 2 was completed at the end of 1998. In conjunction with the gas extraction and flaring system, this action has considerably reduced the smell produced by the decomposition of plaster board within these phases.

*Issue	Action	Other Partners	Start Date	Planned Finish Date	Lifecycle	Progress
6b (cont.)	Continue with the Agency's / site operator's strategy to combat odour problems from Kenwick Landfill Site, and continue to regulate the landfill operation through the waste management licence.	Linc- waste	01/04/98	Ongoing	Underway	Residual odour from partially burnt flare gases had led to complaints from passing motorists during 1999. However, no smell complaints have been received by the Agency during 2000. The site operator (Lincwaste) is currently negotiating with power generators to secure a contract. If successful, a £200k power cable, extending 6km to the nearest connection point to the National Grid, will be required. Planning permission has been granted for the installation of power generation on site and reducing the potential for odours produced by partially burnt landfill gas virtually to zero. Negotiations with Yorkshire Electricity for connection to the National Grid are ongoing.
7a A fuller understanding of coastal processes and their impact on sea defences is required to enable the formulation of long term sustainable sea defence strategies.	Continue with Regional survey contract currently in place monitoring coastal processes.	HECAG	01/04/98	Ongoing	Underway	2000/01 is the final year of a ten-year monitoring proposal. An application was made to MAFF in autumn 2000 for agreement in principle for a further five-year monitoring programme. Regional topographic and bathymetric surveys continue to be undertaken in order to monitor and understand changes to the coastline. This data, together with other studies such as the Southern North Sea Sediment Transport Study (SNSSTS), has been entered onto a sea defence database and will be used to assist in formulating the next generation of SMPs and Sea Defence Strategies. The continued benefits of the programme are recognised and supported by the Agency and consultants working on its behalf as well as coastal partners and academic institutions involved in coastal management.

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7a (cont.)	Review the SMP.	MAFF HECAG	Future	Future	Pending	The Agency is awaiting further guidance from MAFF for the formulation of SMP reviews. Data from the SNSSTS will be crucial for the SMP review.

