



LAND CONSOLIDATION AND LAND DEVELOPMENT

B A D E N - W Ü R T T E M B E R G

LAND CON SOLIDATION AND LAND DEVELOPMENT

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Information

of the Ministry for
Food and Rural Area
Baden-Württemberg

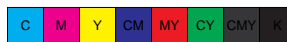


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FOREWORD



The federal state of Baden-Württemberg supports a development of rural areas aimed at economic, ecological and social sustainability by land reorganisation procedures. Given its

comprehensive approach of planning and furtherance, land reorganisation is a most effective instrument to achieve a balanced satisfaction of the diverse, often contrary demands on the rural areas.

With this booklet, the administration for land reorganisation and land development Baden-Württemberg gives an account of opportunities and goals of land reorganisation and their financing.

The information brochure shows that in addition to the income-effective improvements for the farmers, the results include, above all, also benefits for the community as a whole: an improved infrastructure, conservation and integration of biotopes, recreation, water protection, community development, village planning and the preservation of monuments. In this process, the tasks of land organisation are to take care of the moderation of the various interests and to resolve conflicts of usage by a foresighted land and zoning management.

For the politicians of our state, the development and planning of rural areas is a permanent task. For the people, it safeguards the quality of their lives!

Willi Stächele MdL
Minister for Food and Rural Areas
Baden-Württemberg





INTRODUCTION

This booklet shows the contributions made by the Land Consolidation and Land Development Administration in developing rural areas in the State of Baden-Württemberg.

The activities of the Land Consolidation and Land Development Authority have undergone a substantial change from sole agrarian structural measures towards an integrated approach to promote rural development. Based on examples chosen from a variety of applications this booklet provides an overview on the support measures and potential land consolidation can have on the population in rural areas.

It shows that land consolidation can improve agricultural income

and livelihood and safeguards the public interest: fauna and flora habitat networking, protection of monuments and land marks, recreation activities, soil erosion control, water conservation, improvement of infrastructure, and village development.

Within this framework land consolidation mediates different interests. Based on long-term planning, soil and land management resolves conflicts between land uses such as agriculture and forestry or nature conservation versus infrastructure or town/village development.

The development of rural areas is an ongoing task and essential to improve rural livelihood.





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Land consolidation improves agricultural income

Fragmentation of land plots **before** land consolidation

- High labour input
- High costs of production
- Low labour productivity
- High fuel consumption

High costs of agricultural production reduce farm income



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New lay out of plots **after** land consolidation

- Lower labour input due to reduced preparation, turning and transport time
- Higher labour productivity due to more rational cultivation
- Reduction of machine costs and working time
- Reduced fuel consumption by shorter distances to the fields and better roads
- More effective and therefore cheaper fertiliser and pesticide application

Reduction of production costs and hence long-term improvements in agricultural income



Land consolidation enhances the natural ecosystems

Unstructured landscape
before land consolidation



- Large-scale unstructured landscape
- Fragmented and isolated habitats (ecosystems, biotopes)
- Loss of species
- Unattractive landscape scenery

Ecologically impoverished landscape



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New habitats (ecosystems) in a diversified landscape **after** land consolidation



- Landscape diversified by the planting of vegetation strips along roads, creeks and ditches
- Networking of habitats by linking formerly isolated landscape elements
- Increasing number of species by improving the ecological quality
- Landscape improved by design and planting of vegetation

Fundamental and sustainable improvement of the ecological balance and thereby improvement of the natural ecosystems



Land consolidation is an instrument for land development

Among other factors it considers:

- State Development Plan
- State programmes (e.g. Black Forest Programme)
- Regional plans
- Area development plan: local land use and structural plan
- Communal and village development plans
- Planning intentions of communities
- Master plans for watersheds (Integrated river basin development)
- Plans of hydraulic infrastructure
- Protected water resources areas
- Surface water retention
- Flooding areas
- Federal roads
- State (Länder) roads
- Communal and district roads
- Inter-communal roads
- Railways
- Agrarian structural development planning
- Nature conservation areas and protected landscapes
- Forestry framework plans
- Vineyard development plans
- Landscape framework plan
- Landscape plans
- Landscape protection and maintenance plans
- Inventories of fauna and flora habitats
- Ecological valuations
- Supply and waste disposal installations
- Agricultural support programmes



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Land consolidation mediates between different interests



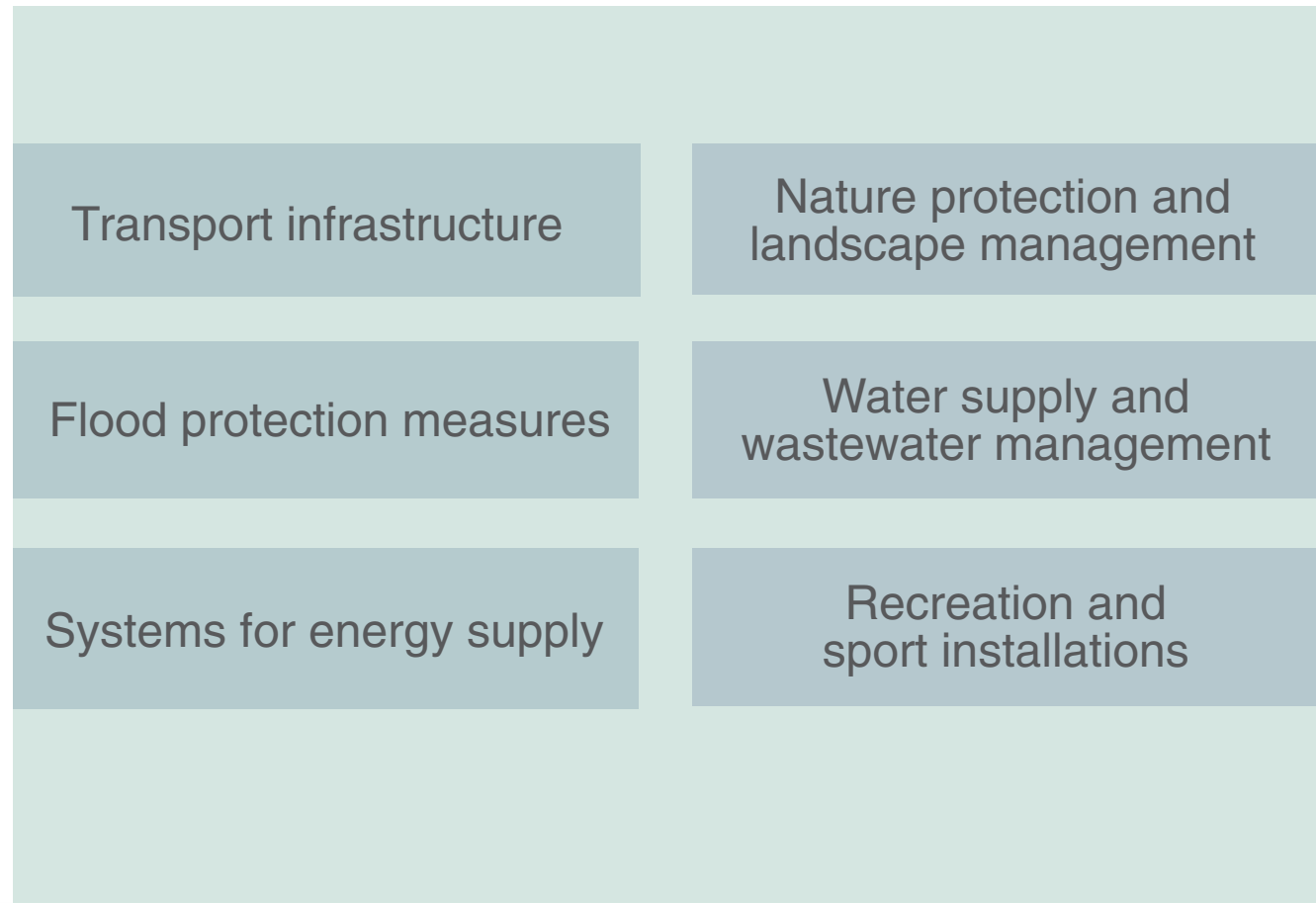
Land consolidation

- considers all existing sector plans
- integrates measures
- implements measures based on financial and chronological synchronisation



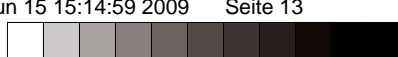
Land consolidation supports infrastructure development

Examples for land consuming infrastructure measures



Without land consolidation:

- Loss of land for the land owners who are immediately affected
- Expensive access roads and oddly shaped remaining areas
- Insufficient legal security with disadvantages for the land owners
- Long lasting legal disputes



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Land consolidation projects provide land for infrastructure measures of public interest



With land consolidation:

- Comprehensive public participation
- The loss of land is shared by all participants in the land consolidation area
- Other areas owned by the public can be exchanged
- Access roads can be limited to a minimum because an optimal road network is created which avoids oddly shaped remaining areas
- Legal security for land provided for infrastructure measures



Land consolidation helps to minimise disadvantages for farmers and landscape due to large-scale projects of public interest

Large-scale construction measures such as roads cause:



- Fragmentation of fauna and flora habitats and existing road and ditch network
- Detours and incomplete access for farmers
- Uneconomically shaped agricultural and forestry plots
- Some farms subjected to significant land loss





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Land consolidation for large scale enterprise developments achieves:



- Reduction of damages by dissection and consolidation of dissipated plots by the design of road, ditch and habitat networks harmonised with the development measure
- Avoidance of detours by early planning of adequate road-bridges and subway crossings combined with new design and distribution of plots
- Distribution of land loss among a larger group of participants and thereby avoidance of hardships putting at risk the existence of single farmers
- Smooth realisation of construction activities due to only one responsible partner - the Land Consolidation and Land Development Authority



Land consolidation improves livelihood in villages

- Intensive public participation on village level in planning and implementing development measures
- Revive traditions
- Creation of new communication centres (village squares)
- Rebuilding and modernisation of existing housing space
- New utilisation of old buildings
- Reviving rural architecture
- Revival of traditional village buildings
- Improvement of roads from the village to the fields
- Rational access to farmyards
- Improvement of plot shapes by regularisation of borders
- Natural and village oriented design of green areas
- Restoration of green belts around villages
- Renaturation of village creeks
- Planting of roadside strips and farmyards
- Measures to increase traffic security
- Improved access to farms
- Separation of different types of traffic
- Construction of new public side-walks and footpaths

Village community

Living conditions

Working conditions

Landscape and green areas

Traffic infrastructure



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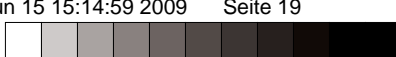
Land consolidation contributes to soil and landscape protection

- Reduced consumption of land by comprehensive planning
- Recultivation of unused former traffic areas
- Allocating land for nature and landscape protection
- Nature oriented design of roads and waterbodies
- Protection of topsoil during construction activities
- Conserving and replanting roadside and field border plantations and hedges
- Conservation of terraces
- Plantation of windbreaks
- Regulation of hydrology
- Identification and protection of vegetation stripes along waterbodies
- Facilitation of contour cultivation by respective access

Reduction of land consumption

Soil protection

Prevention of erosion



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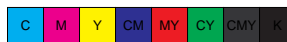
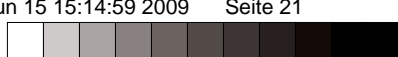
Land consolidation supports water conservation

- Allocation of surface water retention areas
- Conservation of natural retention areas
- Design of groundwater infiltration areas
- Increased soil storage capacity by deep loosening
- Nature oriented development of creeks and ditches
- Development of lakes and ponds
- Renaturation of waterways
- Installation of bridges
- Development of protected water resources areas
- Floodwater retention areas
- Vegetation stripes along waterbodies

Water retention

Environmentally friendly
water resources
development

Water conservation and
flood control



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Land consolidation creates installations for leisure and recreation activities

Land consolidation offers a wide variety:



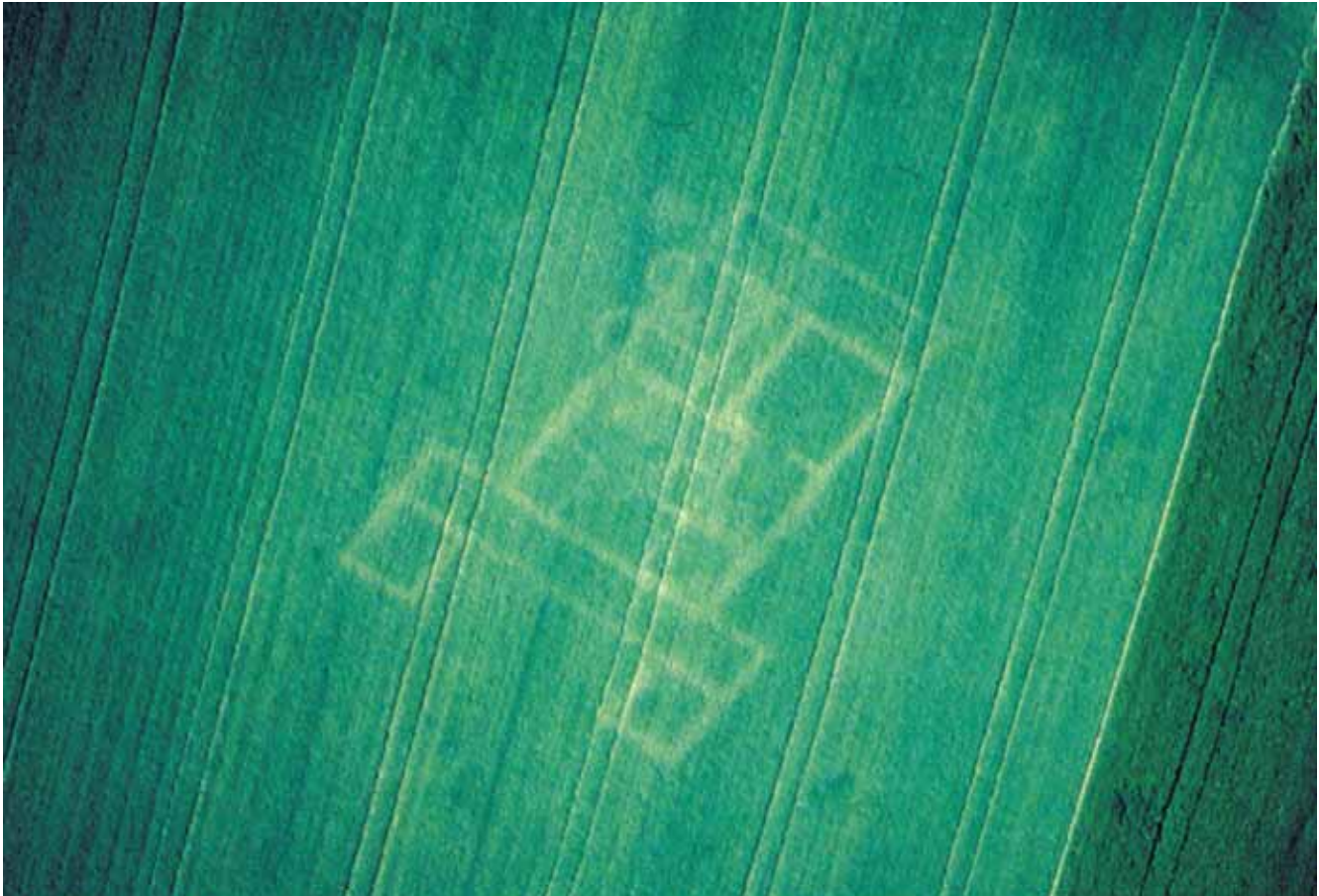
- Cycling trails
- Fishing lakes
- Horse trails
- Soccer fields for training
- Hiking trails
- Information boards
- Viewpoints
- Wells
- Car parking
- Camps and protection huts
- Rest areas
- Benches
- Lawns and meadows
- Playgrounds
- Water treading
- Nature trails
- Fire places



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Land consolidation considers the conservation of monuments and land marks

Land marks and monuments are permanently secured by:



- Transfer of private land into public property
- Support of archaeological protection and excavation
- Design of field plots, access and new plantings



Land consolidation renews land register, real estate register and other public registers

The renewal of public registers increases the legal security of land owners, e.g.:

Land register

Real estate register

Water register

Inventory of protected areas and elements according to the Nature Protection Law

Register of monuments

Inventory of allowable construction weights

Maps

Geographical Information Systems



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Variety of procedures according to the Land Consolidation Act

Standard land consolidation procedure

Procedures for areas under vineyards

Forest land consolidation

Ecological procedure

Village consolidation

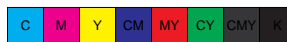
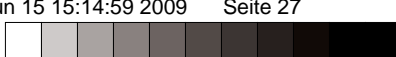
Accelerated consolidation

Voluntary land exchange

Comprehensive solutions and support to conserving, designing and developing economic, housing and recreational functions of rural areas. Measures of rural road construction, village renewal, water resources management, soil protection, nature conservation and landscape maintenance can be realised. **The advantage is the spatial and temporal concentration of all measures for the achievement of different objectives related to agricultural, environmental and regional policy.**

For rapid improvements of production and working conditions in agriculture and forestry. Realising necessary measures of nature conservation and landscape maintenance without the necessity of a new road network or other larger rural development measures. If possible consolidation is based on exchange of entire plots, generally by mutual agreements.

A rapid and simple procedure for the improvement of the agrarian structure if plots are exchanged voluntarily between few land owners. If the solution requires only limited surveying and subsequent measures, it is especially suited to solve land fragmentation.



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Land consolidation for
large scale projects of
public interest

Large-scale public infrastructure measures such as highways, railways, navigation canals, water retention basins require extensive rural areas. The objective of land consolidation is to distribute the loss of land plots among a larger number of land owners and to avoid disadvantages for agriculture and landscape (habitat fragmentation). Condition: the legal procedure for public works planning is conducted. The implementing agency covers costs for adequate mitigating measures for habitat fragmentation and other costs associated with the legal procedure. Compensation is paid for the required land and other disadvantages.

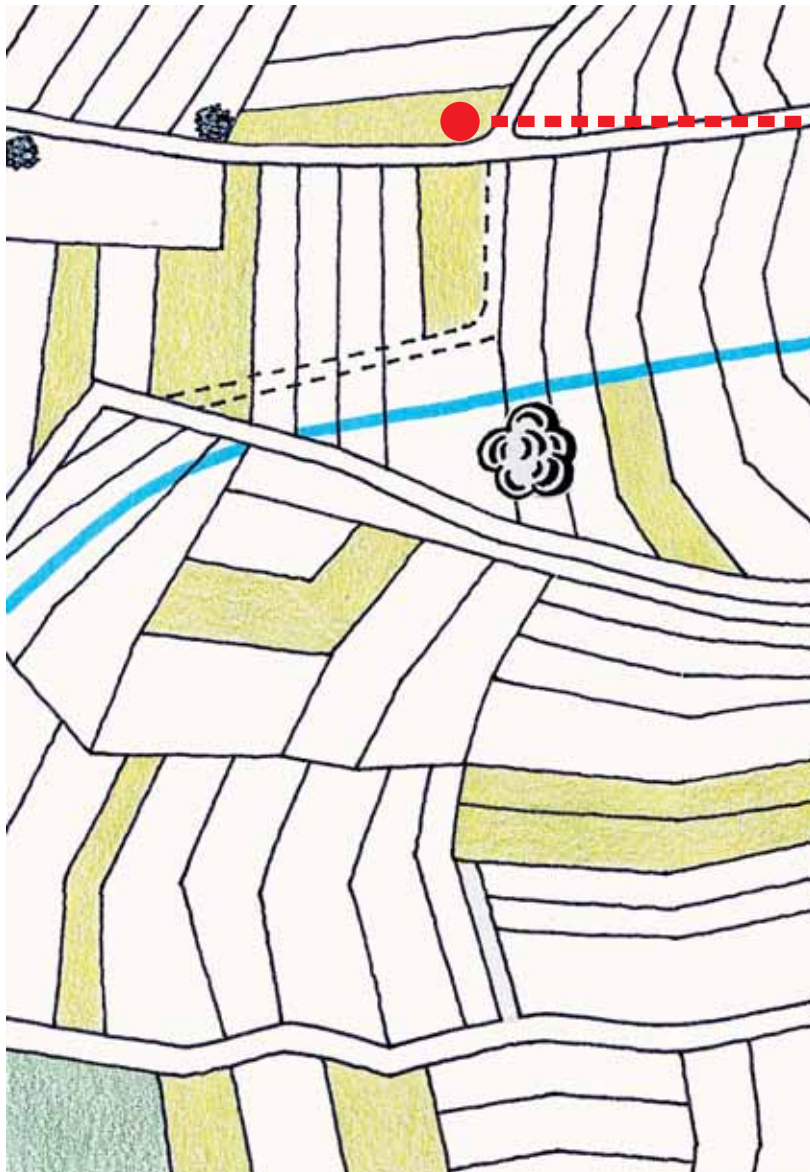
Simplified land
consolidation
procedure

This is applied to realise land development aiming at improved agrarian structure, village rehabilitation, environmental protection, water conservation, nature conservation and landscape management, or the improvement of village and landscape scenery. At the same time this procedure allows to minimise disadvantages for agriculture and landscape, to resolve land use conflicts and to consolidate land tenure in small communities. The simplification of the procedure consists basically in the omission of an integrated plan for communal and public measures.



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Main stages of land consolidation projects



before land consolidation

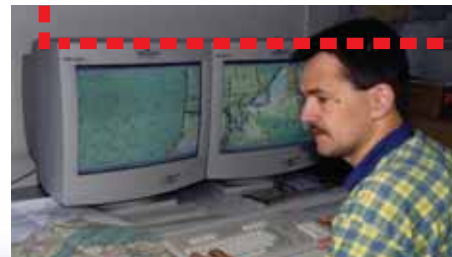
Orientation and information
to the public



Soil and land valuation...



...Landscape valuation...



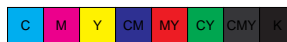
...as basis of land consolidation

Other involved actors:

Community,
Farmers' association,
Regional planning board,

Authority for Agriculture,
Landscape and Soil,
Forestry Authority,
District Authority,

Survey Department,
Road Construction
Authority,
Provincial Administration,
Water Authority,



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Involving the board of the body of participants in the planning process



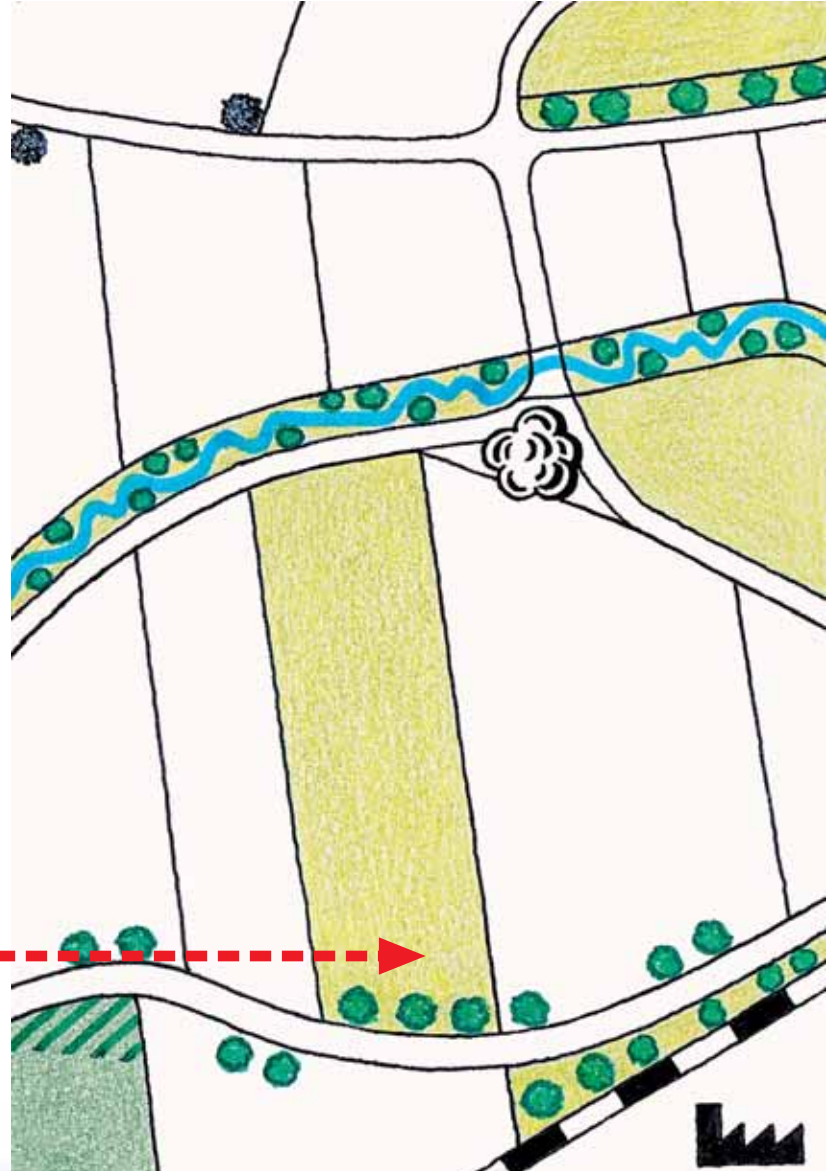
Implementation of measures



Compensation proposals



Re-allotment of plots

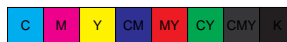
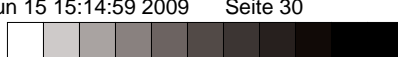


after land consolidation

Geological Department,
Authority for the Conservation of Monuments,
Associations and NGOs recognised according to §29 of the Federal Nature Protection Law,
District Nature Protection Authority,

Provincial Department of Nature Protection and Landscape Maintenance,
State Land Register Office,

State Road Authority and other State Agency responsible for public interests (according to local conditions)



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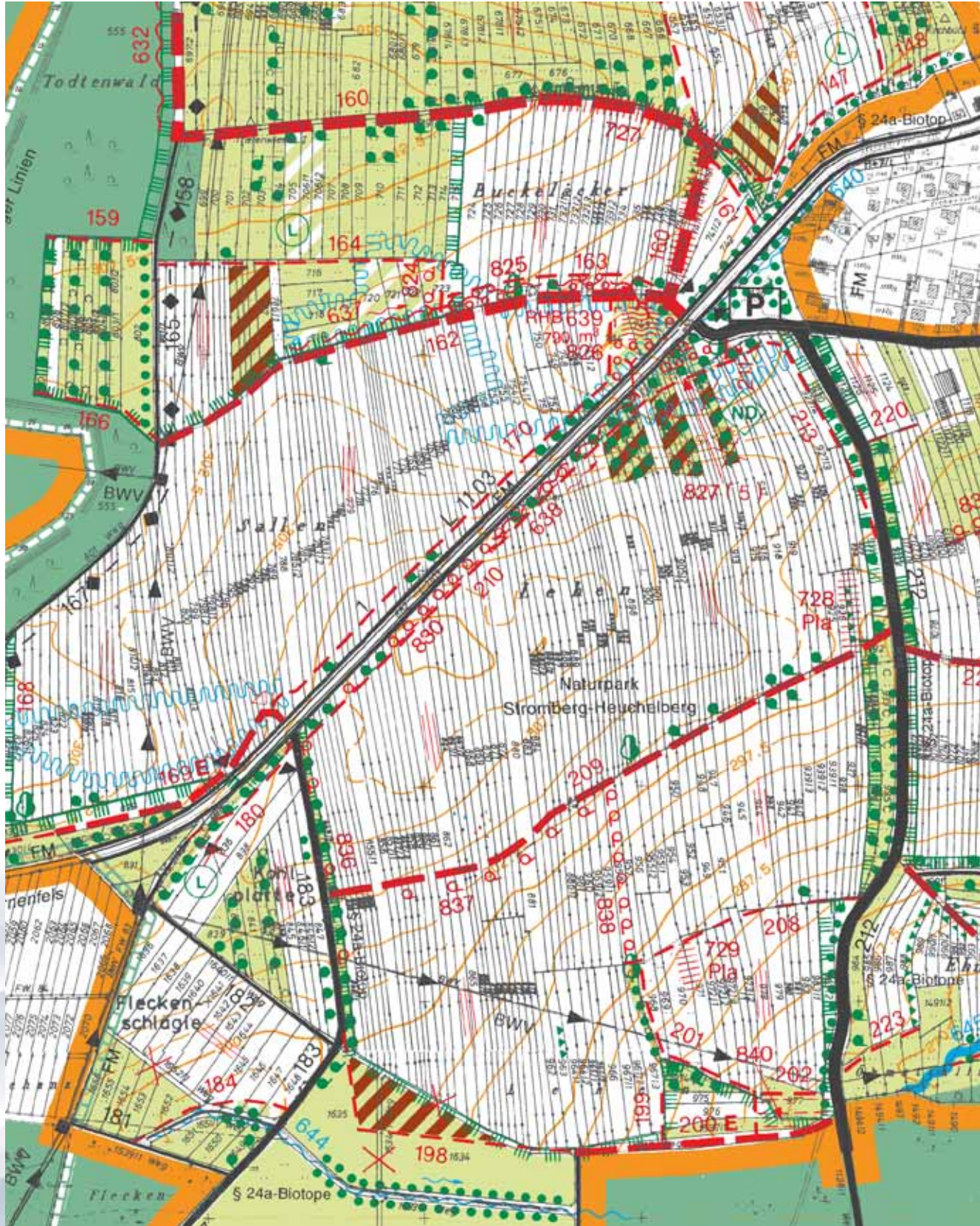
Infrastructure plan

- contains a map and written proposals for the omission, modification and new installation of communal and public installations, e.g.:
 - paths
 - roads
 - waterbodies
 - water management installations
 - landscape elements
 - measures of village improvement
- is established in consensus with the board of the body of participants
- is subject to an Environmental Impact Assessment
- is the framework for the design and re-allotment of the new plots
- includes:
 - cost estimates
 - financial plan
 - timetable



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Infrastructure plan with landscape plan



--- planned

--- existing

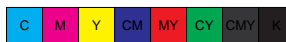
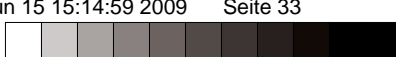


Participation of land owners in the land consolidation procedure

Land Consolidation and Land Development Authority

- Information and orientation of all participants during a public hearing before deciding to open the procedure
- Meeting of participants before every important planning stage
- Additional meetings of participants according to needs
- Individual conversations at any time
- Individual conversations about compensation proposals with every participant (hearing of requests)





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The land owners form the
body of participants

and they elect the
board

The board of the body of participants

- is partner of the Land Consolidation and Land Development Authority
- is the direct partner for dialogue and fixing dates
- participates in all important stages and decision-making
- knows local conditions and perceptions
- represents the body of participants in
 - planning
 - financing
 - implementation
 - at court



Association of bodies of participants

Members:

The bodies of participants

Tasks:

Execution of the financial administration on behalf of its members (the individual bodies of participants)

Implementation of communal infrastructure in harmony with nature protection and landscape management goals

Organs of the association:

- Assembly of members
 - consists of the respective chairmen of the bodies of participants
 - meets once a year
 - elects the board every four years
- The board of the association
 - represents the common interests of the bodies of participants
 - represents the association in the public
 - publishes its position on important plans and decisions in the field of agrarian structural policy
 - co-ordinates with other associations
 - takes political initiatives
 - is partner of the State Office of Land Consolidation and Land Development
- The manager
 - carries out the day-to-day tasks of the association
- Office:
Öhringer Str. 2
74189 Weinsberg
Tel.: (07134) 9826-0

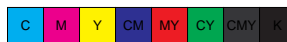
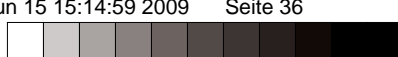


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The land consolidation plan



- summarises the results of the land consolidation process
- contains all regulations of the project:
 - old plots of the participants with the respective rights and duties
 - new plots of the participants with the respective rights and duties
 - cost regulations
- produces the same results as a communal statute for parts of the regulations
- replaces land and cadastral register until these are renewed
- is basis for the renewal of public registers after the new legal status of the plots has become effective



Costs and financing

Costs of procedure

Personnel and other institutional costs of the State Office of Land Consolidation and Land Development are borne fully by the State of Baden-Württemberg.

These costs are composed of:

- salaries of the public employees
- costs of experts and consultants (e.g. for land valuation)
- costs of office buildings, office material, production of maps, etc.
- cost of acquisition and maintenance of instruments for surveying, vehicles for surveying and administrative purposes and technical equipment



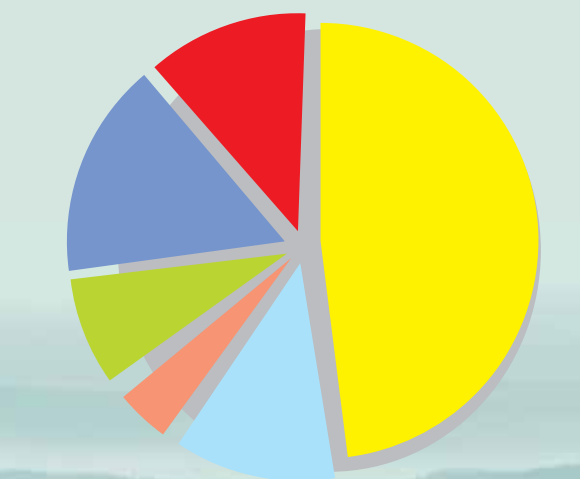
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Costs of implementation

The costs of implementation of a land consolidation project depend on the type of procedure, local conditions and the expected construction measures. The following diagrams are an example for a standard land consolidation project. More detailed information may be obtained from the Land Consolidation and Land Development Authorities.

Costs of implementation of a standard land consolidation project

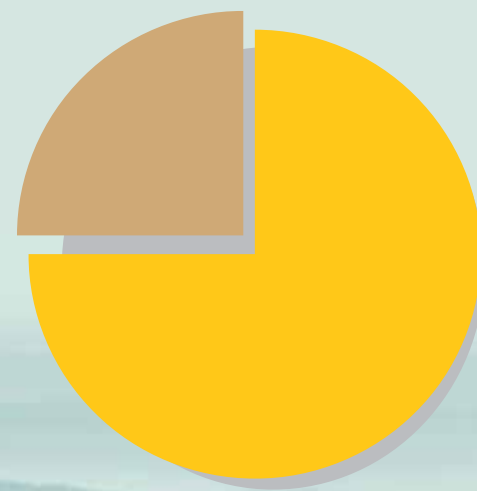
-Example-
1.25 million EUR



Road construction:	600.000 EUR
Hydraulic works:	150.000 EUR
Soil improvement:	50.000 EUR
Landscape management:	100.000 EUR
Reorganising property:	200.000 EUR
Administration costs of the body of participants:	150.000 EUR
Total:	1.250.000 EUR

Financing of a standard land consolidation project

-Example-
1.25 million EUR
Costs of implementation



Subsidies from EU, Federal Government and State (Land)	
Own contribution of participants	
Area with costs:	500 ha
Implementation costs:	2.500 EUR/ha
Total implementation costs:	1.250.000 EUR
Subsidies:	75%
This corresponds to a contribution of participants of:	625 EUR/ha



Addresses of Land Consolidation and Land Development Authorities

Ministry of Rural Area, Department of Land Consolidation and Land Development
Ministerium Ländlicher Raum, Referat Flurneuordnung und Landentwicklung
Kernerplatz 10, 70182 Stuttgart, Tel. 0711 - 126-0

State Office of Land Consolidation and Land Development
Landesamt für Flurneuordnung und Landentwicklung Baden-Württemberg
Stuttgarter Straße 161, 70806 Kornwestheim, Tel 07154 - 139-0

Land Consolidation and Land Development Authorities

Regierungsbezirk Karlsruhe

Buchen
Präsident-Wittmann-Str. 16
74722 Buchen
Tel. (06281) 98-0

Freudenstadt
Stuttgarter Str. 61
72250 Freudenstadt
Tel. (07441) 56-0

Karlsruhe
Ritterstr. 28/30
76137 Karlsruhe
Tel. (0721) 3559-0

Sinsheim
Werderstr. 14
74889 Sinsheim
Tel. (07261) 151-0

- Außenstelle Heidelberg -
Poststr. 11
69115 Heidelberg
Tel. (06221) 988-3

Regierungsbezirk Tübingen

Ravensburg
Gartenstr. 100
88212 Ravensburg
Tel. (0751) 3626-0

Riedlingen
Gammertinger Str. 18
88499 Riedlingen
Tel. (07371) 187-500

Tübingen
Wilhelmstr. 22
72074 Tübingen
Tel. (07071) 200-2563

Ehingen
Biberacher Str. 1
89584 Ehingen
Tel. (07391) 508-340

Regierungsbezirk Stuttgart

Crailsheim
Schlossplatz 1
74564 Crailsheim
Tel. (07951) 401-0

- Außenstelle Schwäbisch Hall -
Bahnhofstr. 21
74523 Schwäbisch Hall
Tel. (0791) 752-0

Ellwangen
Oberamtsstr. 2
73479 Ellwangen
Tel. (07961) 81-0

Heilbronn
Paulinenstr. 18
74076 Heilbronn
Tel. (07131) 9578-200

- Außenstelle Künzelsau -
Austr. 17
74653 Künzelsau
Tel. (07940) 9162-0

Kirchheim
Jesinger Str. 52
73230 Kirchheim
Tel. (07021) 97072-0

Schorndorf
Gmünder Str. 16
73614 Schorndorf
Tel. (07181) 9286-0

Tauberbischofsheim
Wellenbergstr. 3
97941 Tauberbischofsheim
Tel. (09341) 983-0

Regierungsbezirk Freiburg

Freiburg
Bissierstr. 3
79114 Freiburg
Tel. (0761) 8855-622

Offenburg
Badstr. 20a
77652 Offenburg
Tel. (0781) 205-0

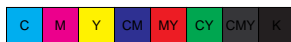
Radolfzell
Waldstr. 30
78315 Radolfzell
Tel. (07732) 155-300

Rottweil
Schillerstr. 6
78628 Rottweil
Tel. (0741) 243-0

Bad Säckingen
Hauensteinstr. 14
79713 Bad Säckingen
Tel. (07761) 566-0

Land Consolidation and Land Development Authorities areas of responsibility





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