

CRITERIOS DE PLANIFICACIÓN DE UN MODERNO VERTEDERO BASADO SOBRE EL ANÁLISIS DEL METABOLISMO URBANO

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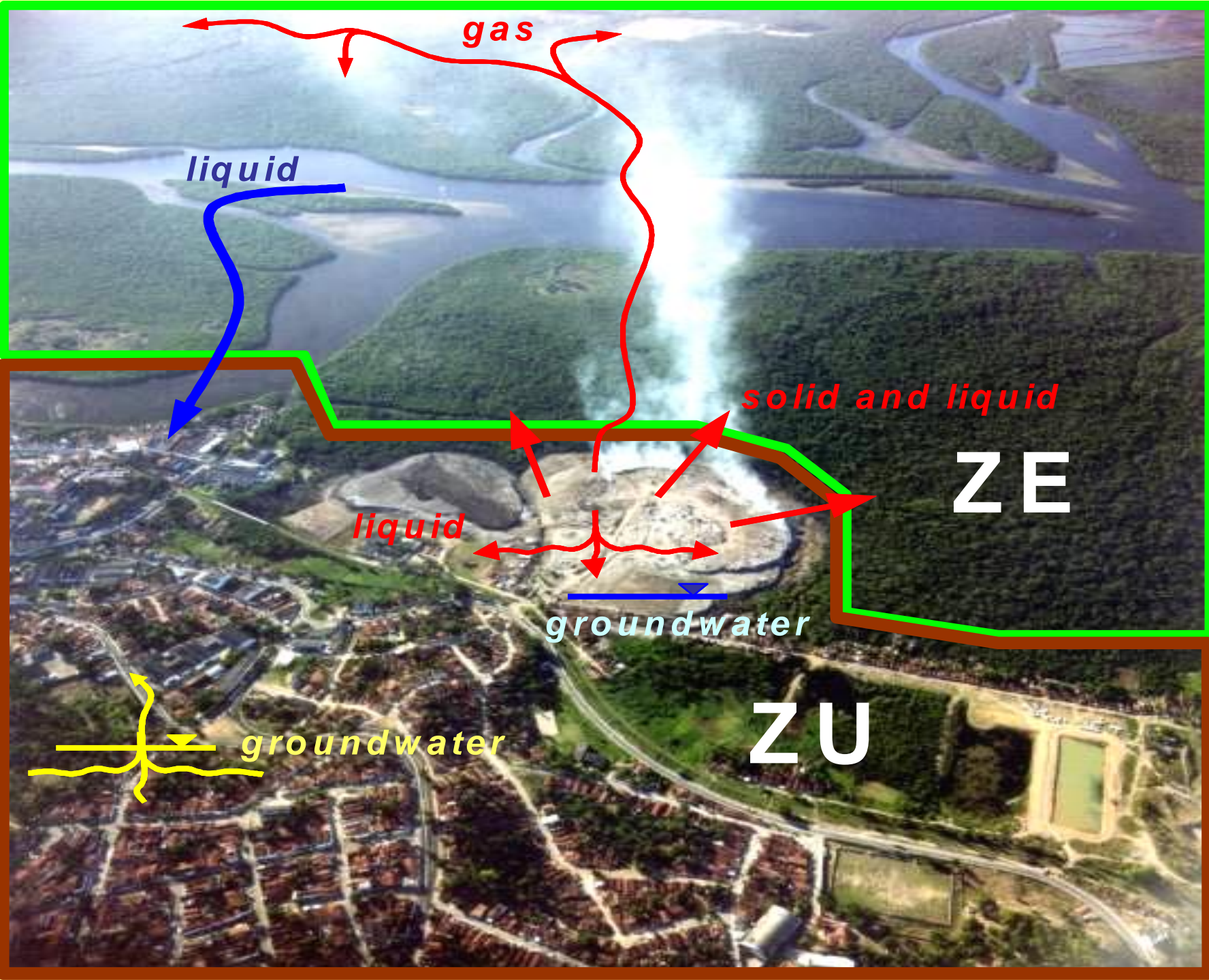






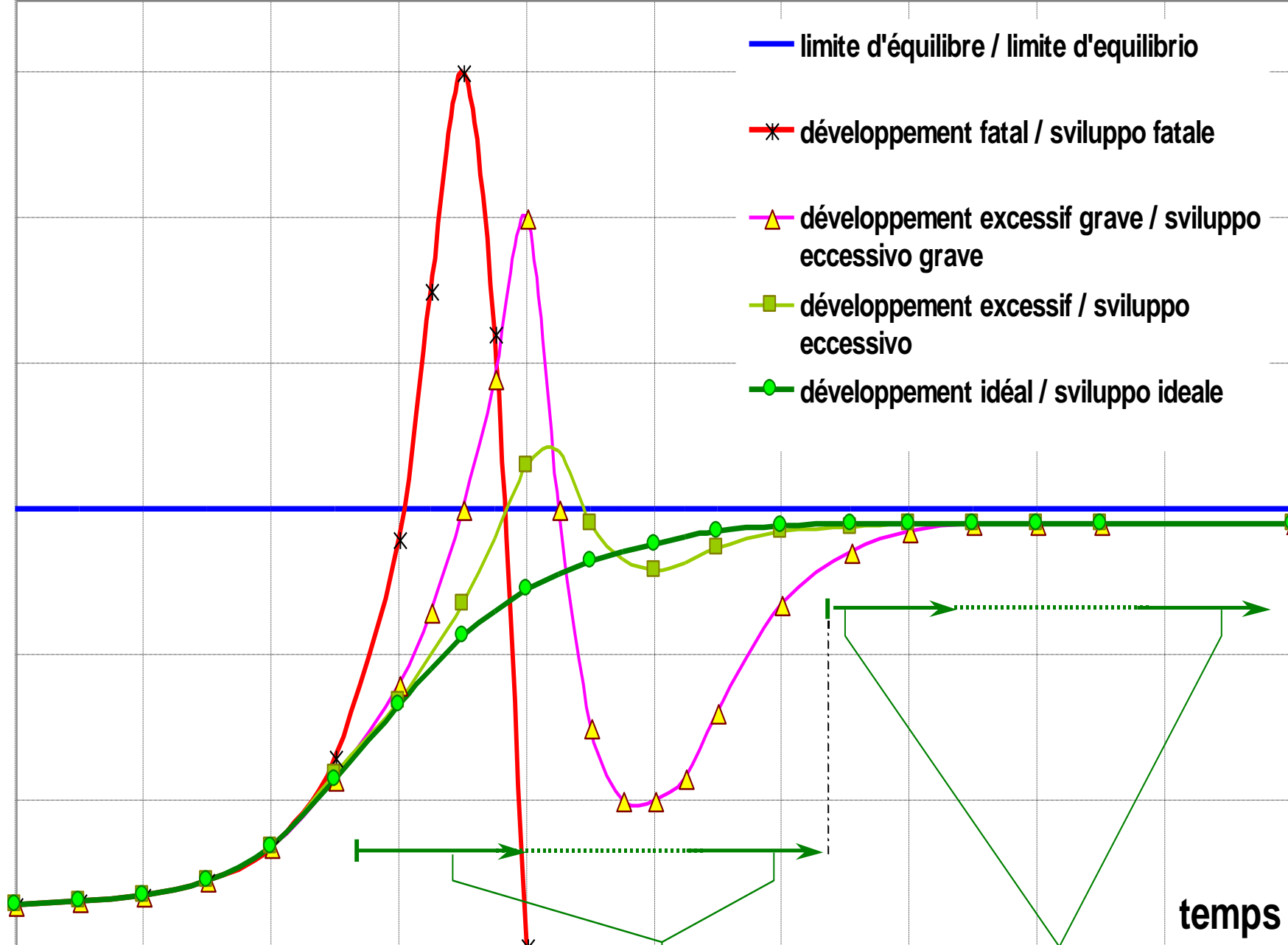






développement anthropique
sviluppo antropico

- limite d'équilibre / limite d'equilibrio
- * développement fatal / sviluppo fatale
- ▲ développement excessif grave / sviluppo eccessivo grave
- développement excessif / sviluppo eccessivo
- développement idéal / sviluppo ideale



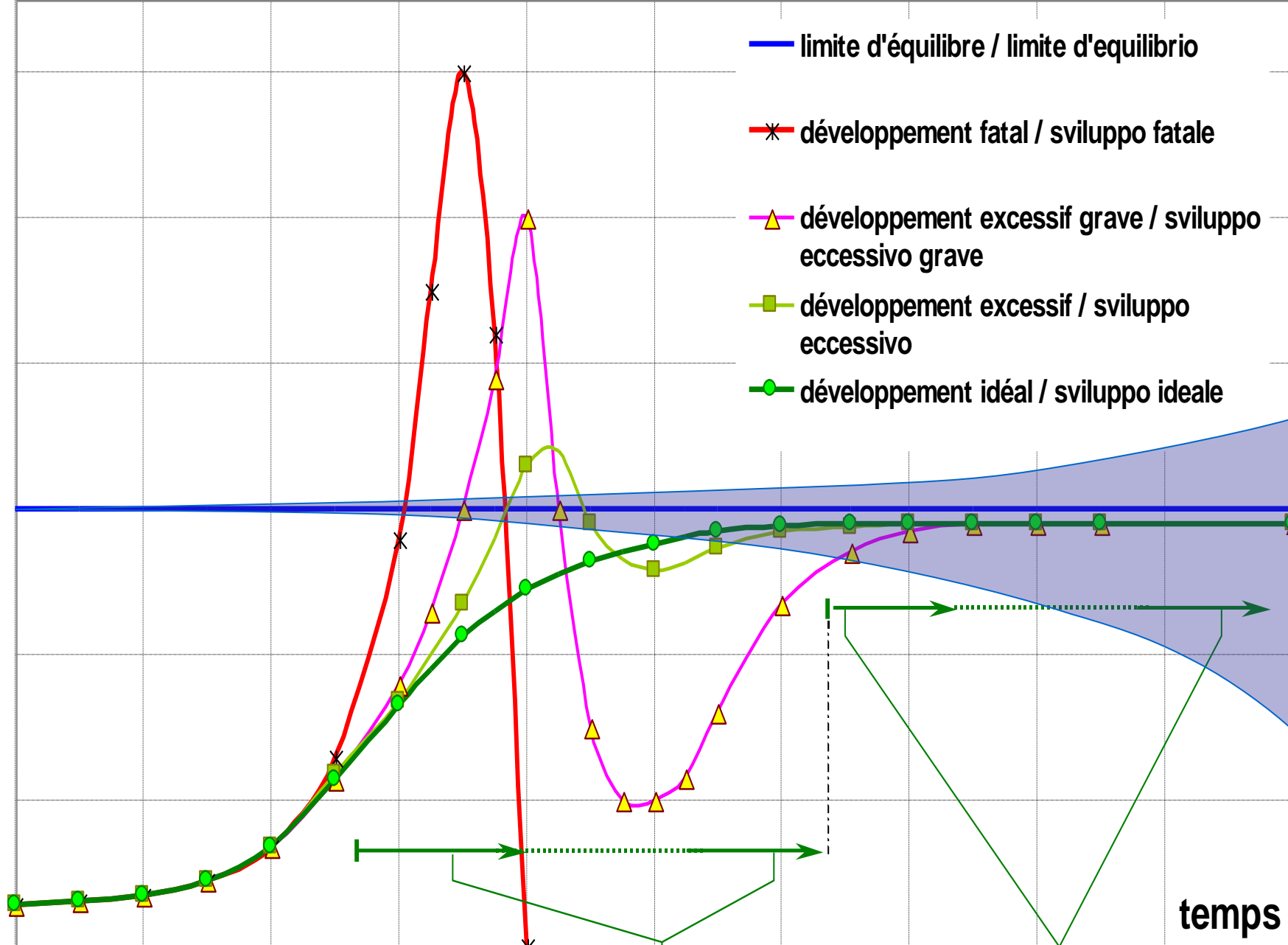
développement durable
sviluppo sostenibile

équilibre durable
equilibrio sostenibile

temps
tempo

développement anthropique
sviluppo antropico

- limite d'équilibre / limite d'equilibrio
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développement durable
sviluppo sostenibile

équilibre durable
equilibrio sostenibile

temps
tempo

pianificazione globale

pianificazione urbana

**pianificazione dei flussi di
materia e di energia**

**pianificazione dei flussi di
residui e destino finale**



Africa tribal camp 2001
(spaceimaging.com)

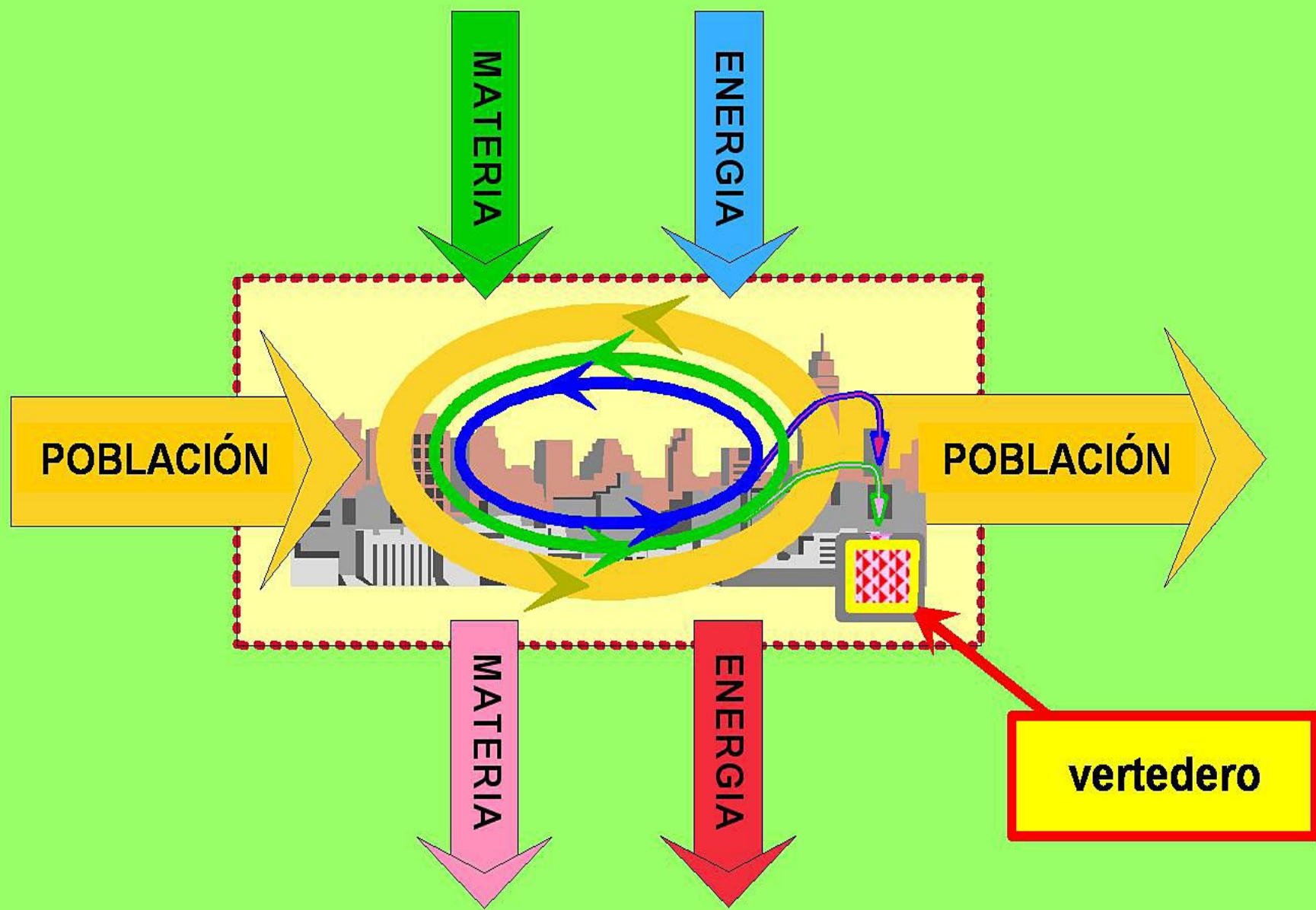
Definiciones :

Metabolismo: conjunto de las transformaciones y de los flujos de materia y energía que ocurren en las células y en los seres vivos, durante un ciclo de vida.

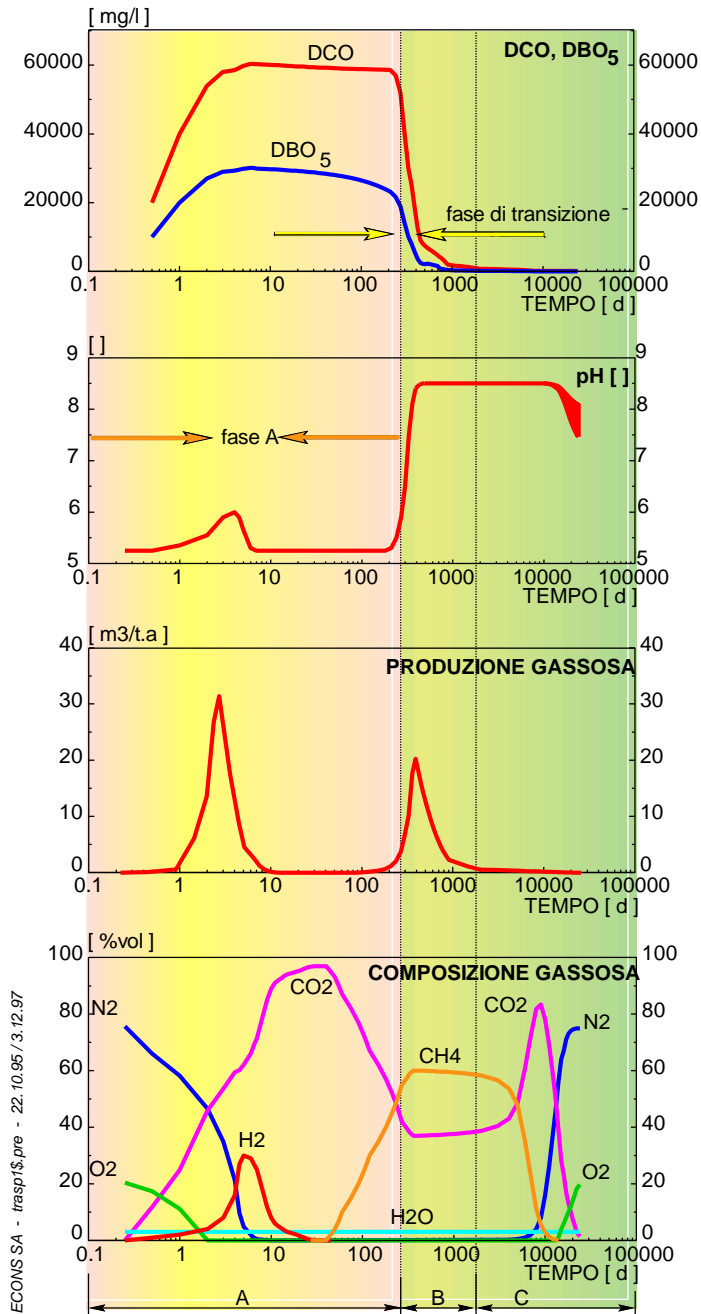
Metabolismo urbano: conjunto de las transformaciones y de los flujos de personas, de materias, de energía y de información que ocurren en la zona urbana, durante un ciclo de vida.

Flujo: equivale a la cantidad de materia y de energía que durante la unidad de medida del tiempo adoptada, traspasa los límites de una determinada zona. En el caso del relleno sanitario, se trata de la zona de control.

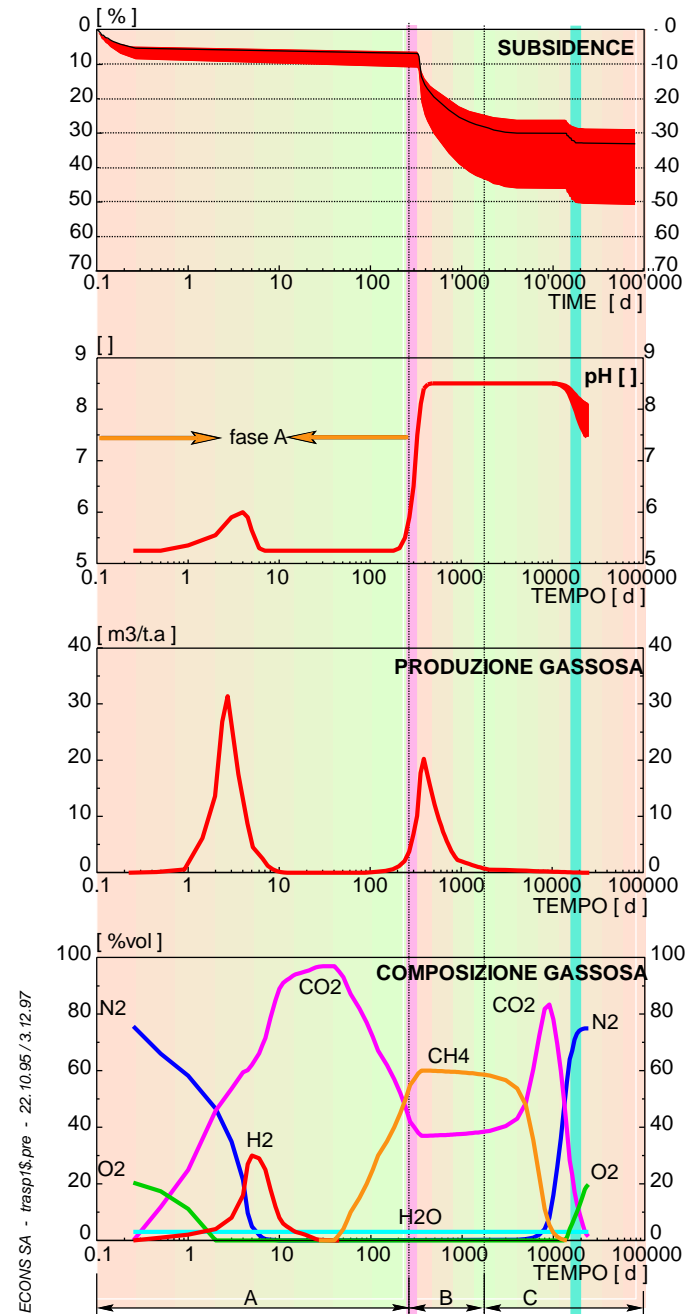
Zona de control: volumen delimitado por una superficie, que es una superficie cerrada donde los procesos internos y los flujos de entrada y de salida son controlados.



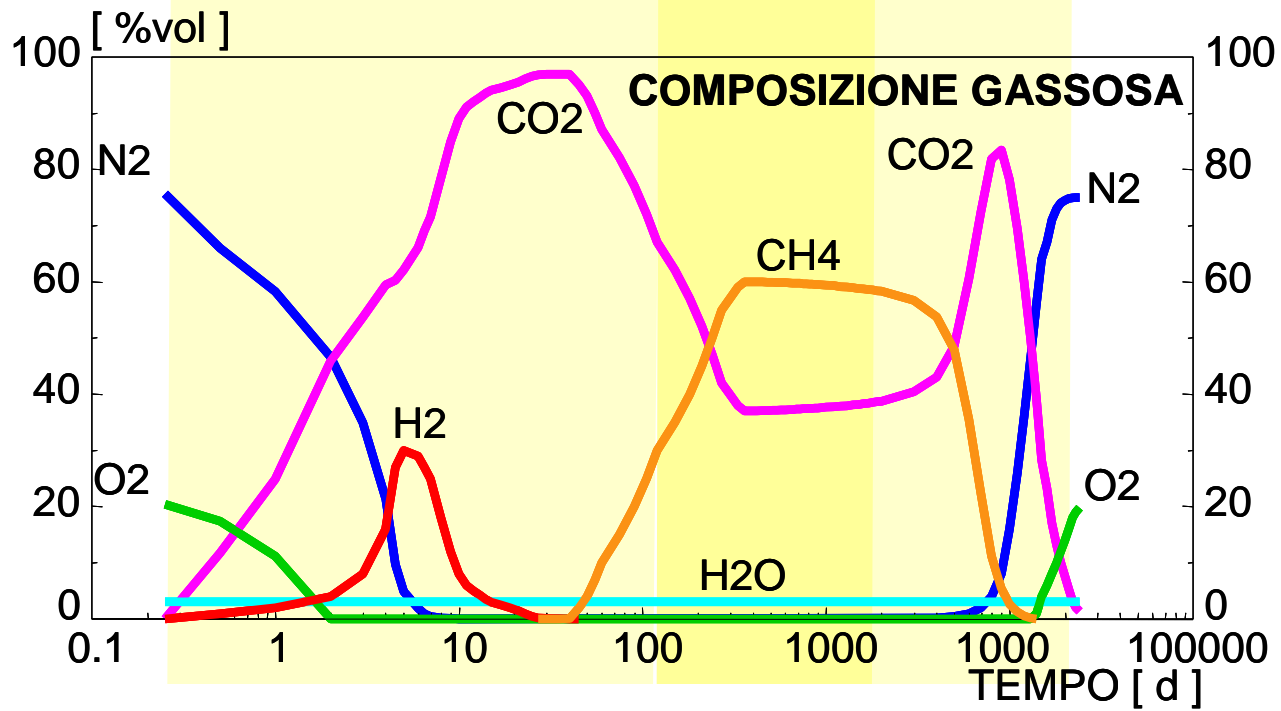
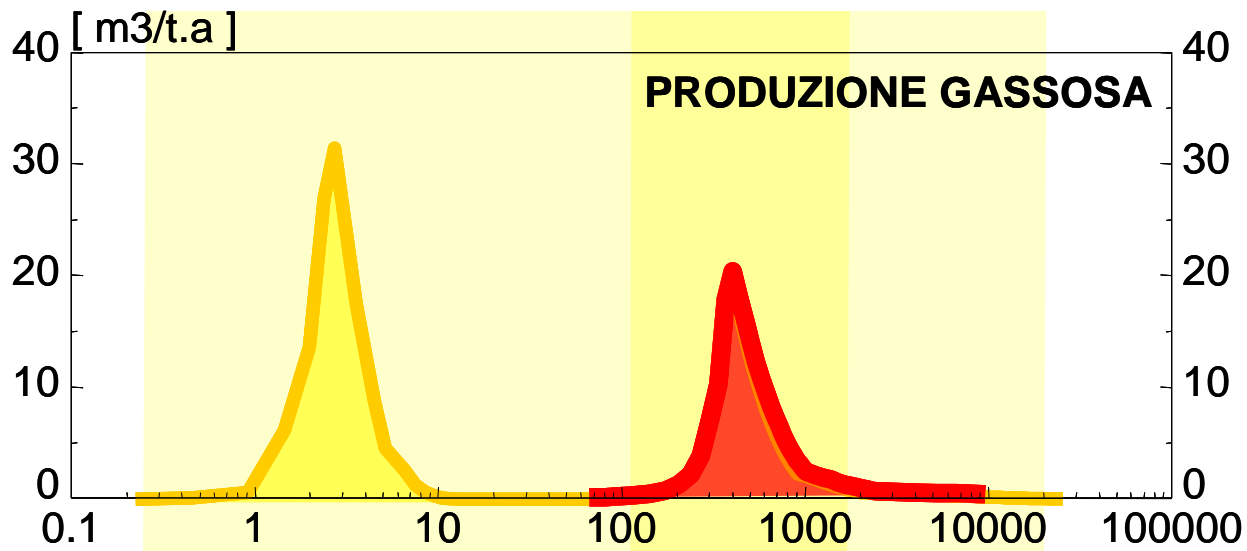
vertedero



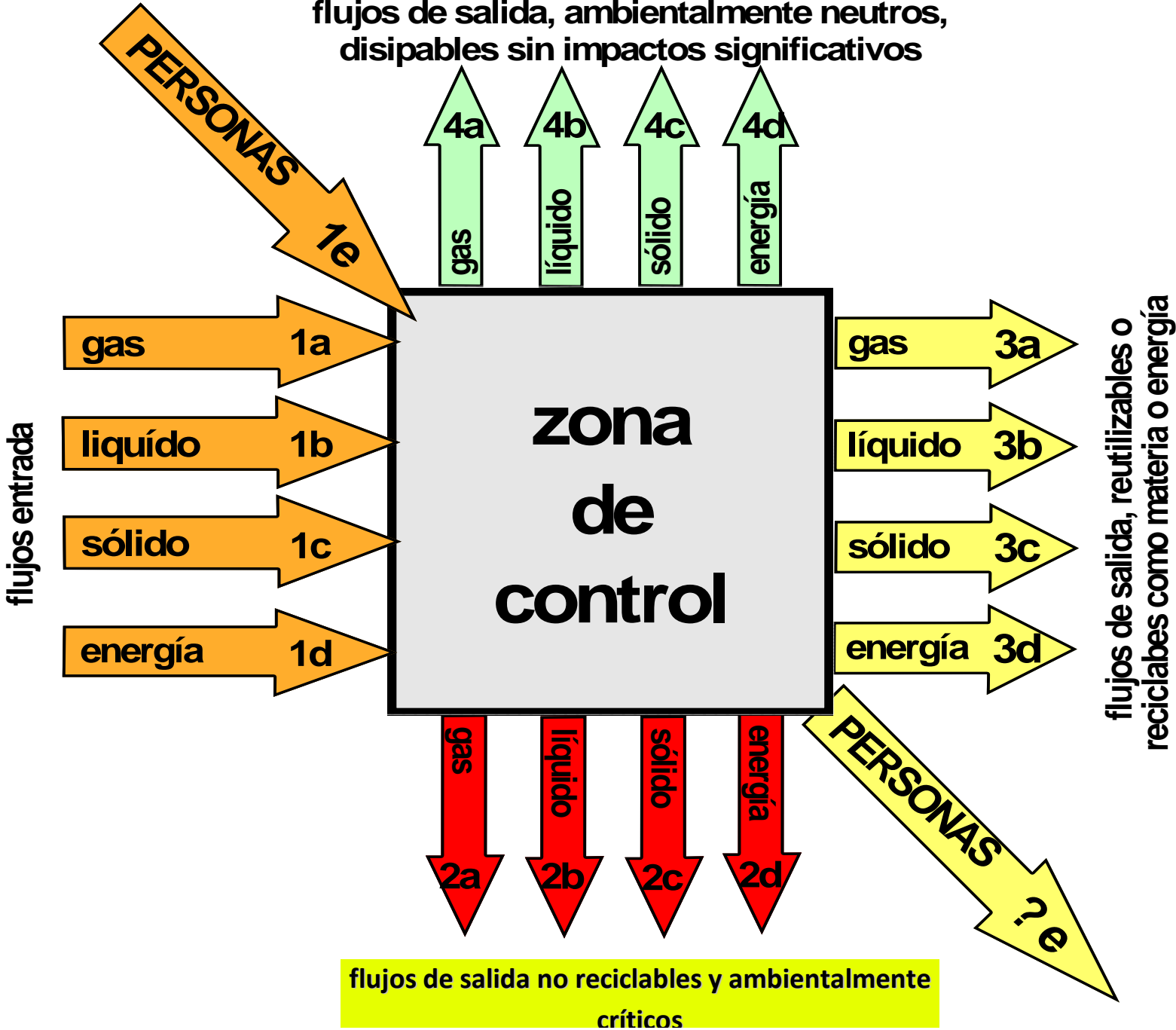
ECONS SA - traspr1\$,pre - 22.10.95/3.12.97

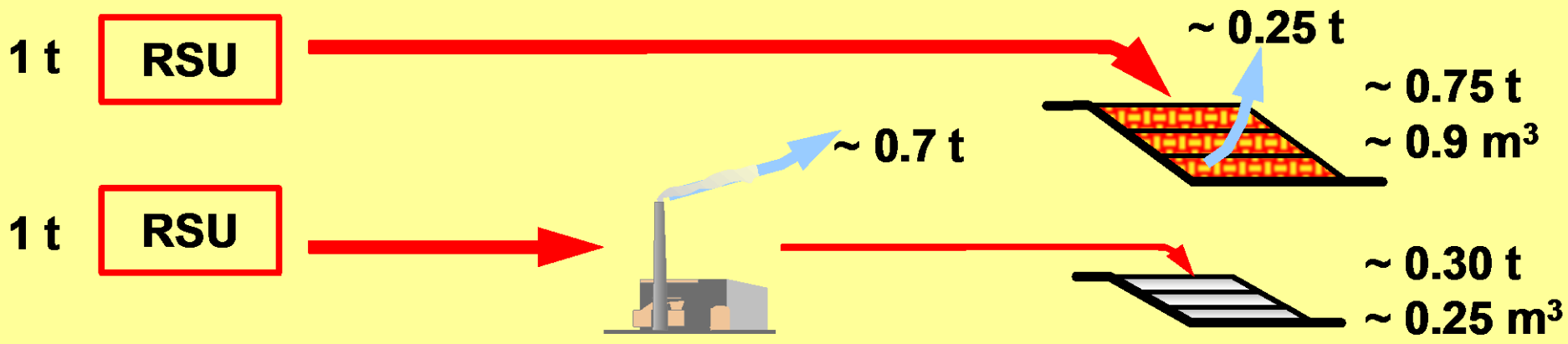


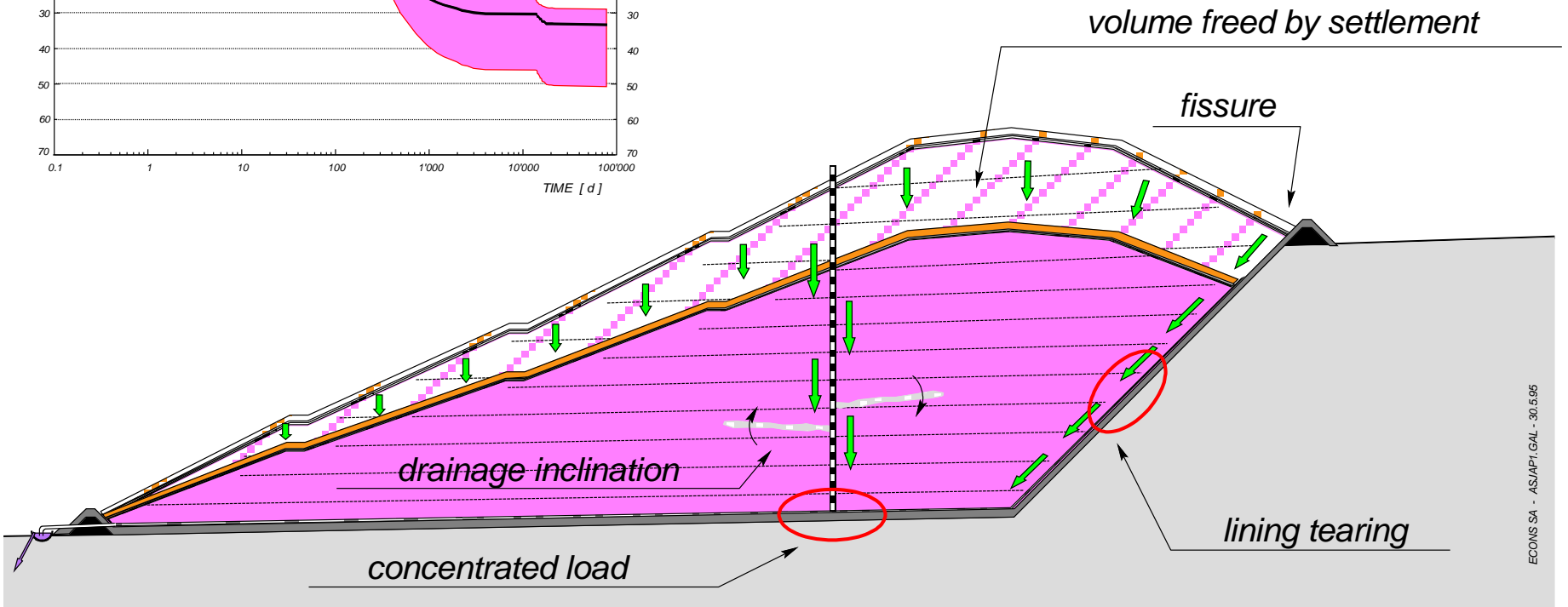
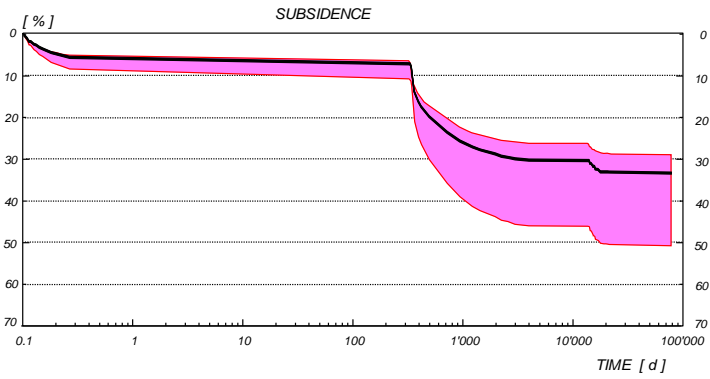
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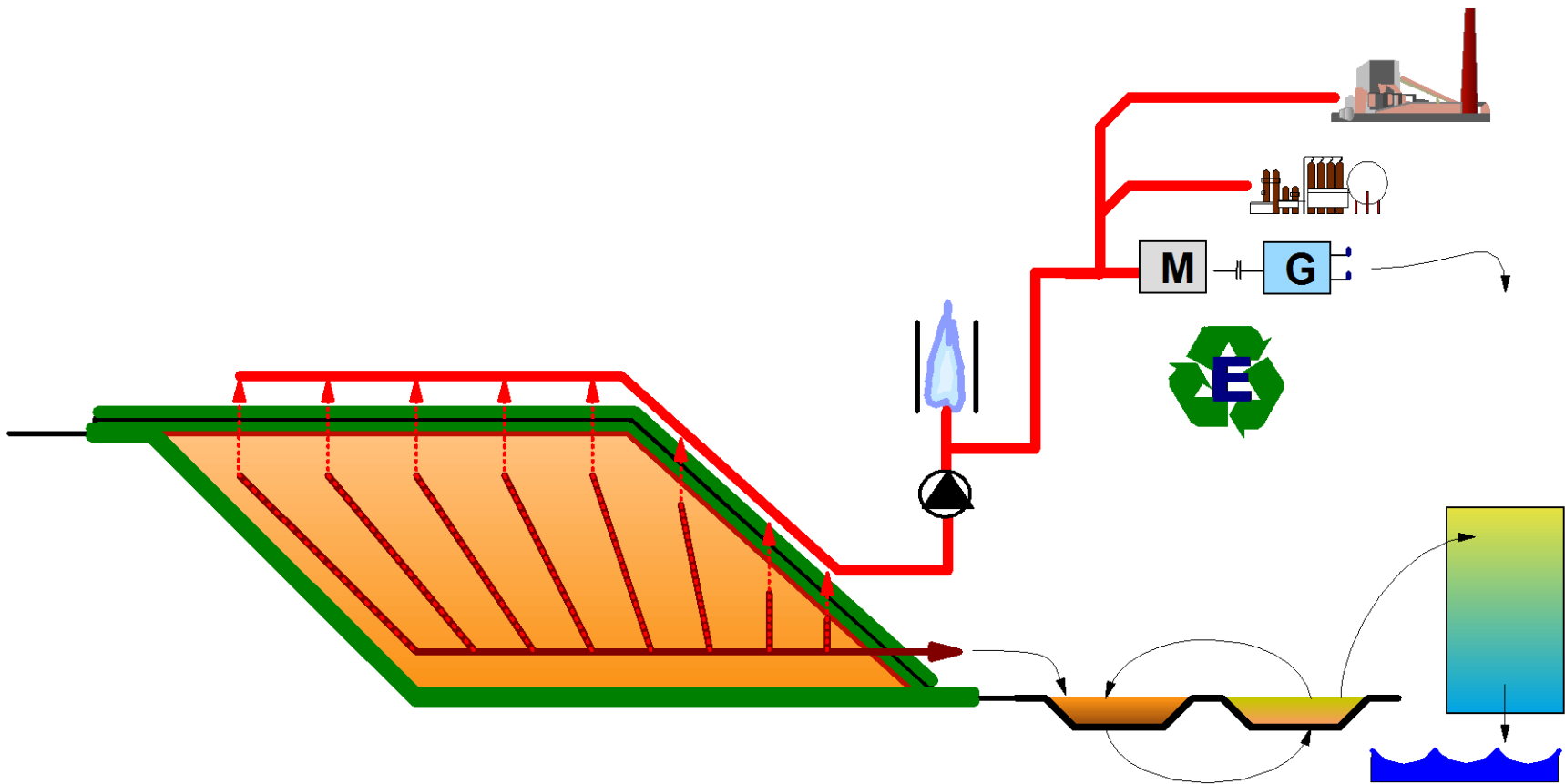


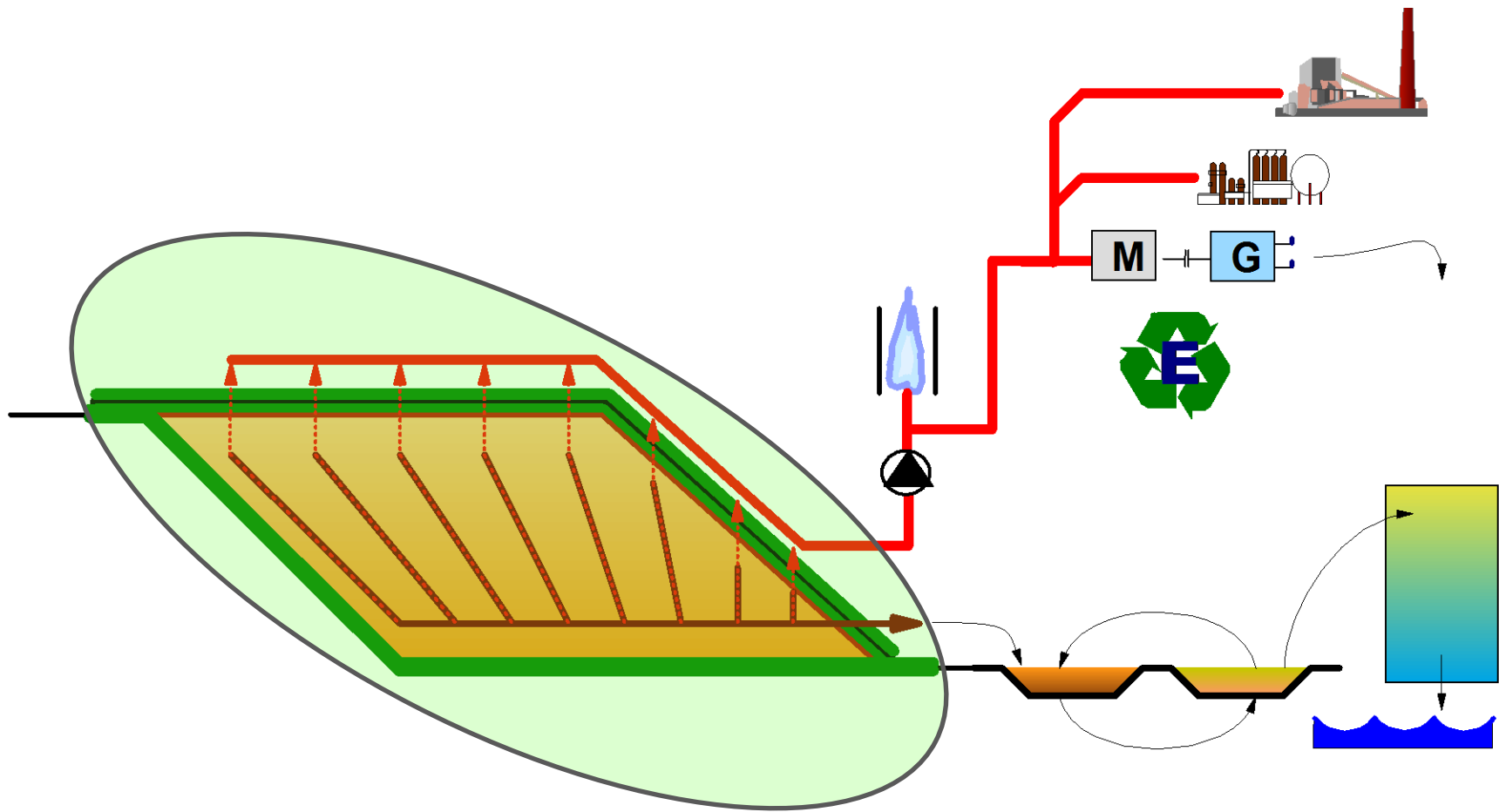
flujos de salida, ambientalmente neutros,
disipables sin impactos significativos

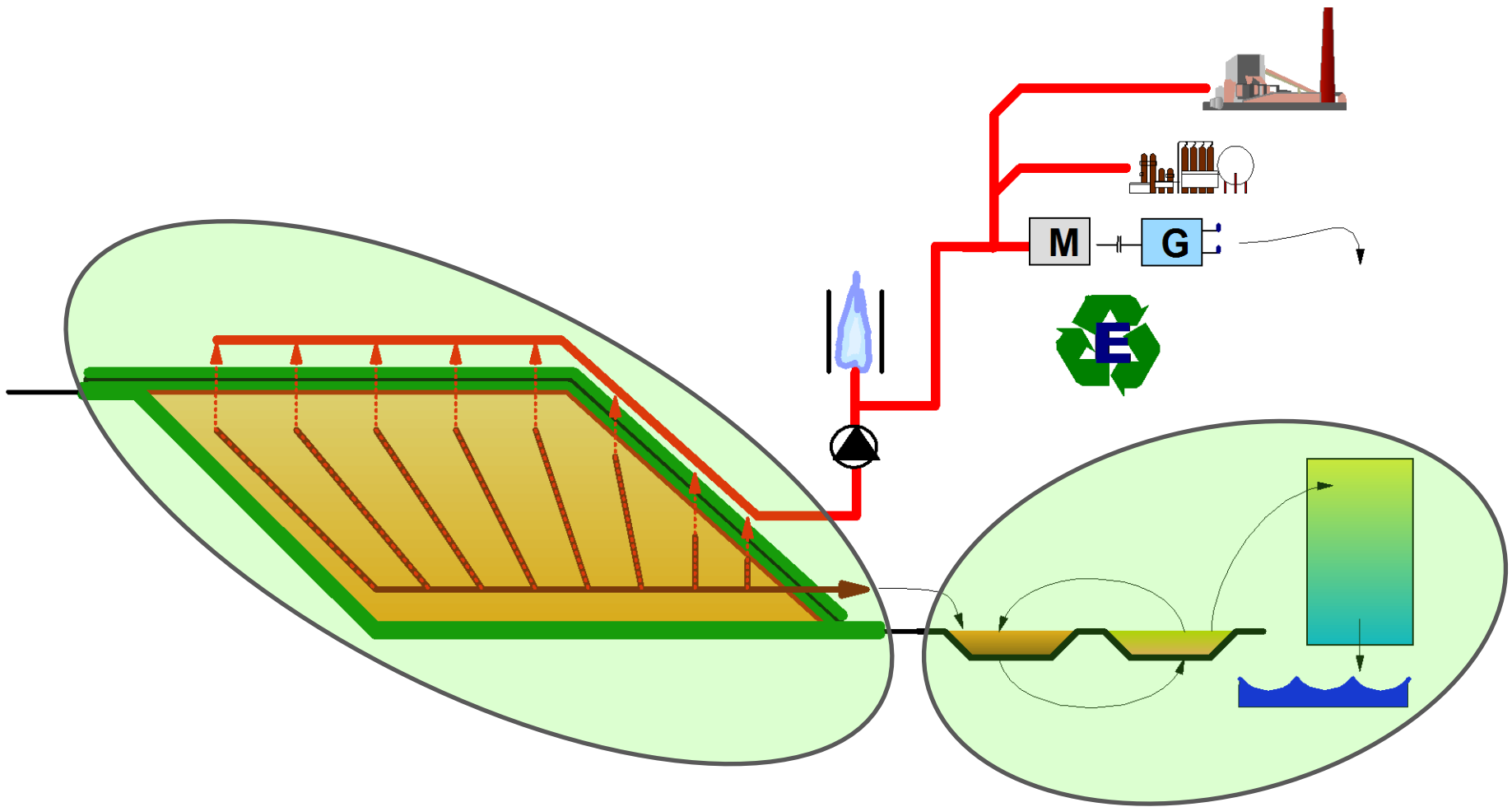


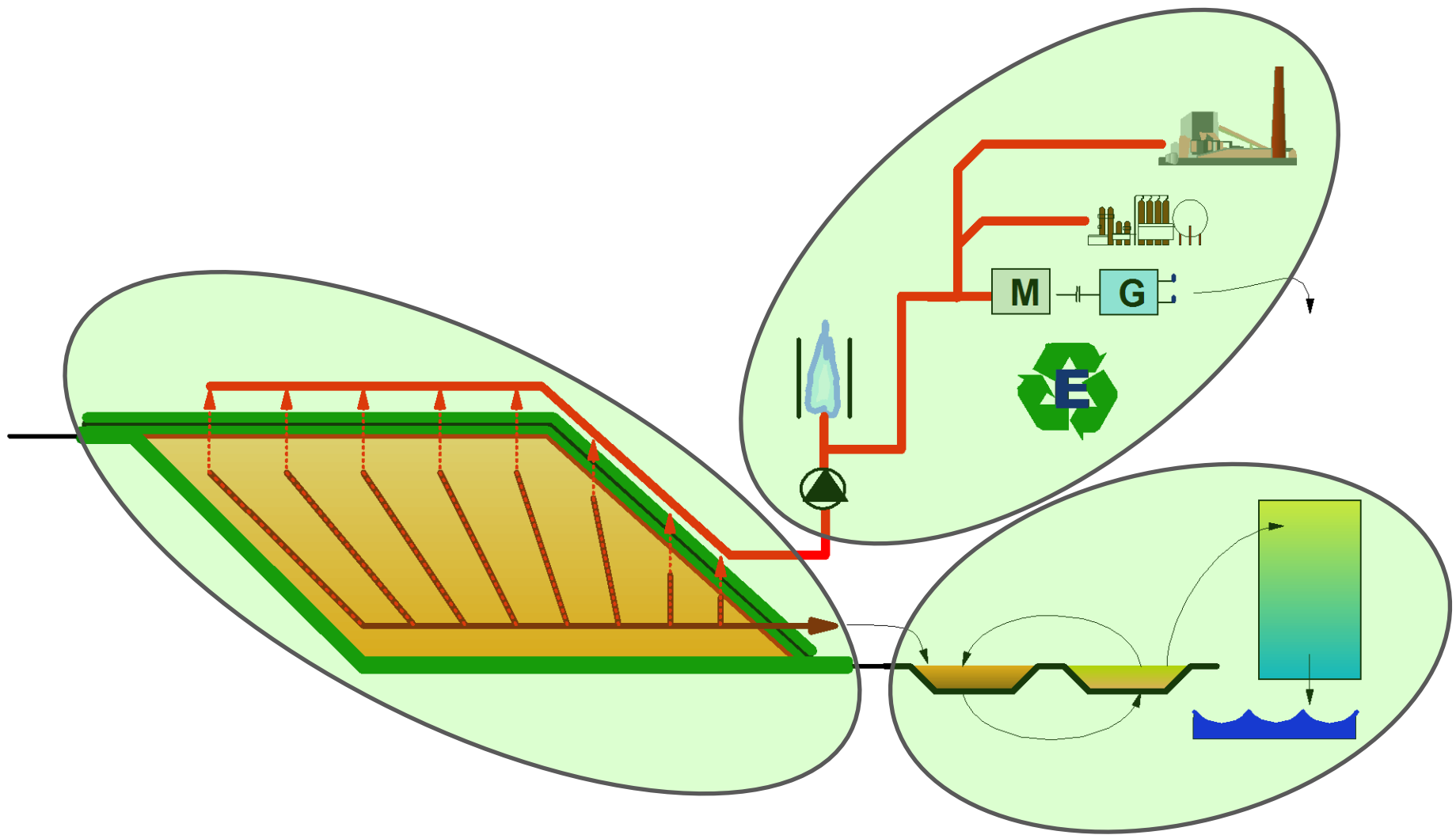


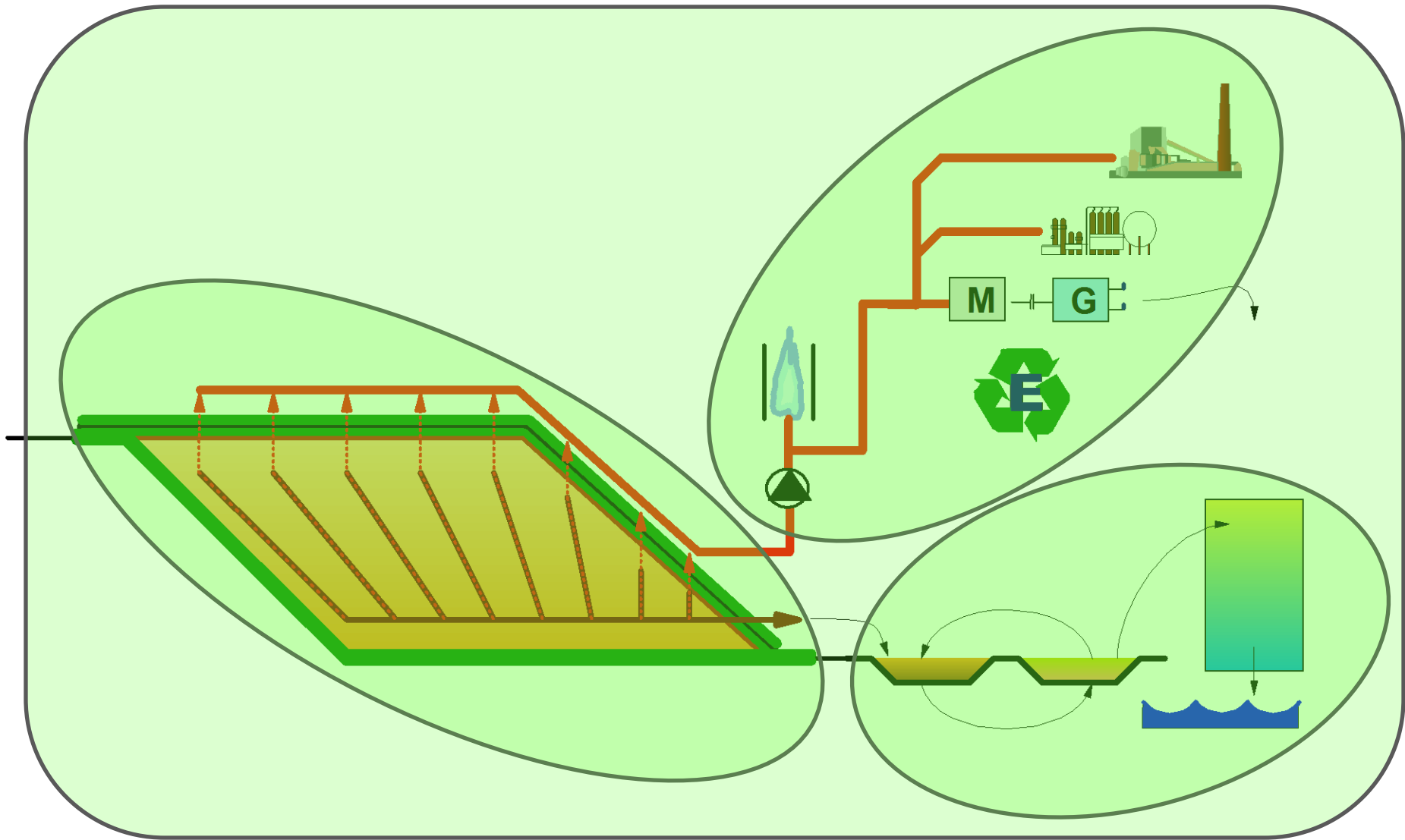










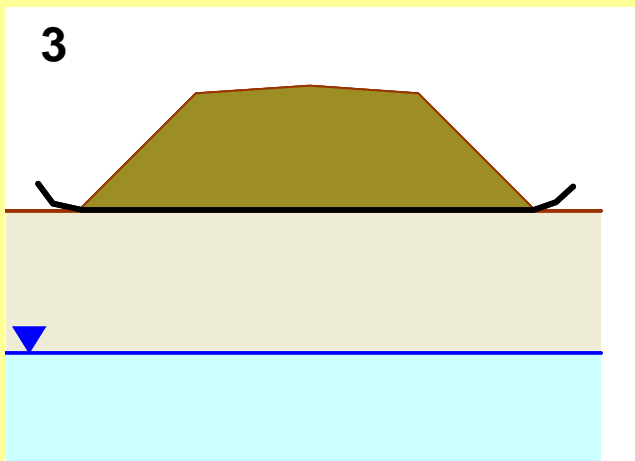
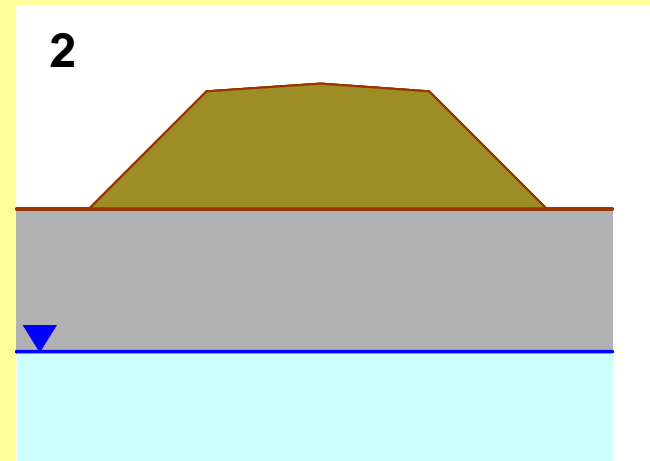
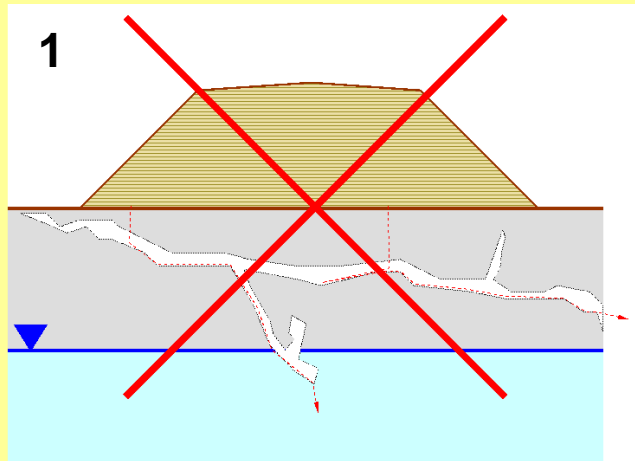


Principali fattori geologici:

1 discarica in formazione carsica,

2 su argilla compatta,

3 su terreno relativamente permeabile

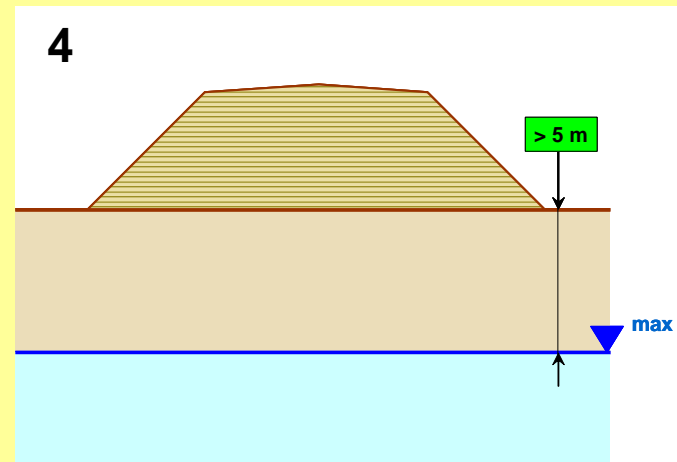
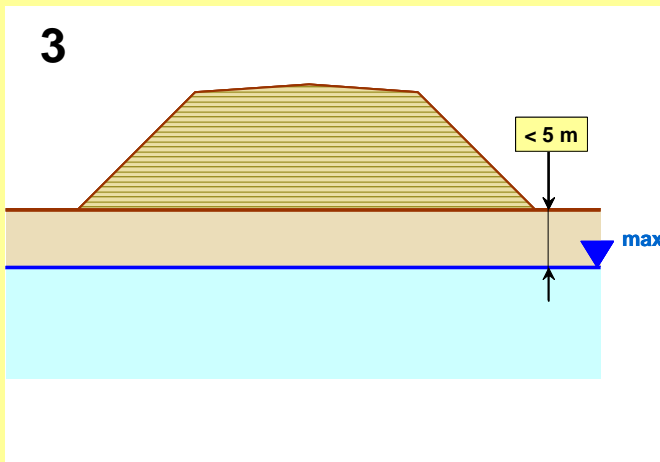
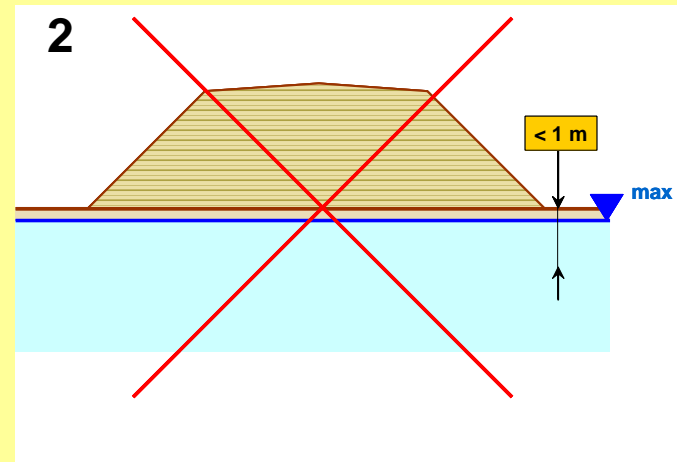
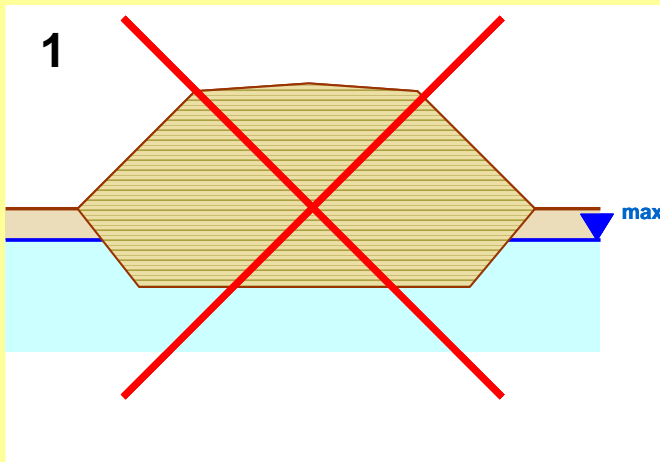


Principali fattori idrogeologici:

1 discarica in falda

2 poco sopra la falda (1 m)

3 sopra la falda a distanza critica, 4 sopra la falda a distanza adeguata.

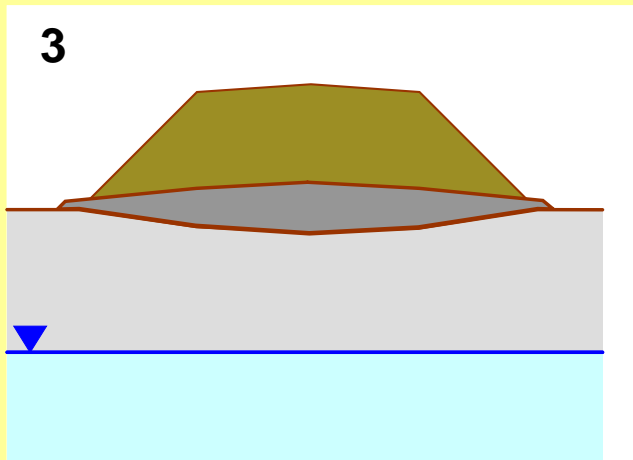
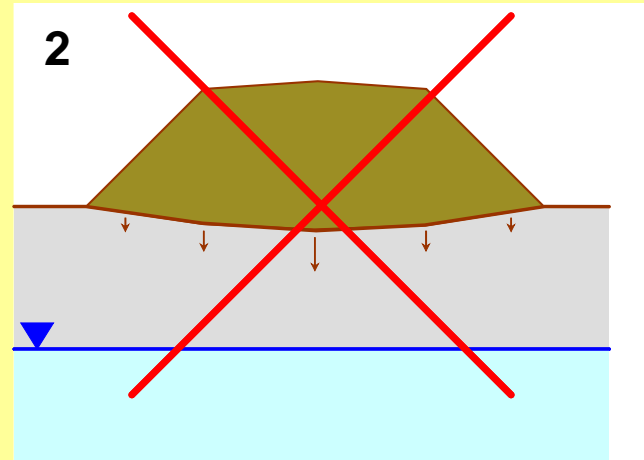
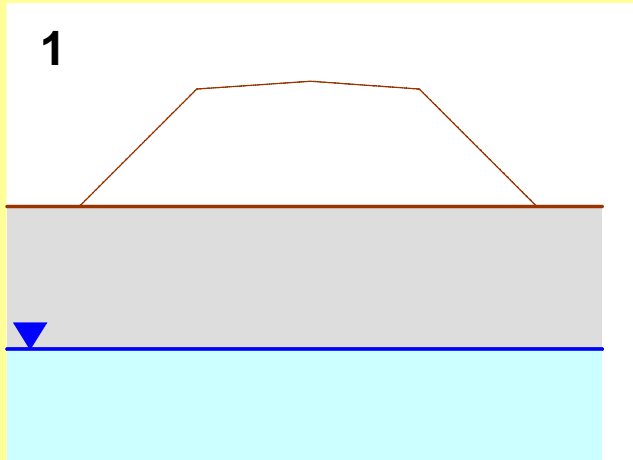


Principali fattori geotecnici:

1 situazione prima della realizzazione della discarica,

2 situazione inaccettabile dopo la realizzazione della discarica,

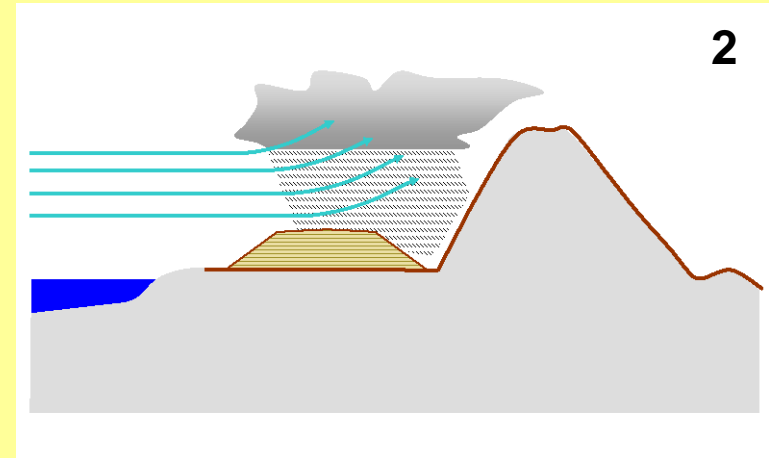
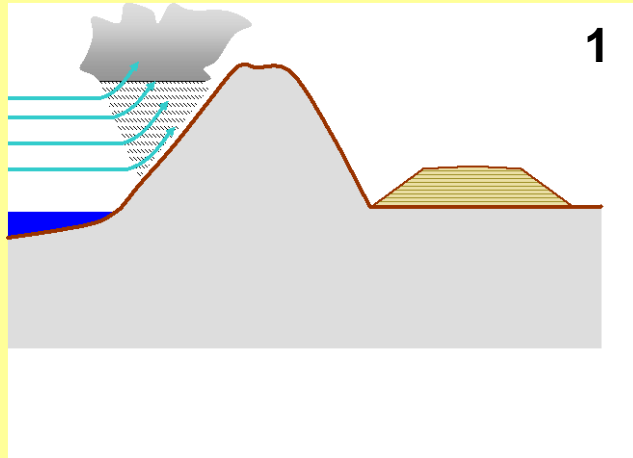
3 situazione con ricarico dopo la realizzazione della discarica



Principali fattori meteorologici

1 discarica in posizione poco piovosa e riparata dai venti che asportano fogli e polvere

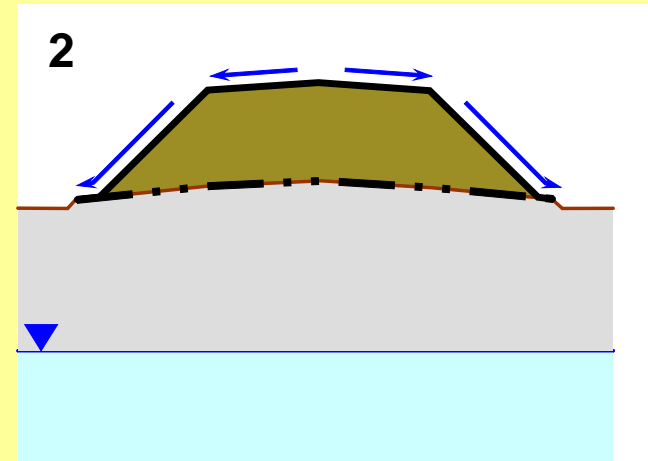
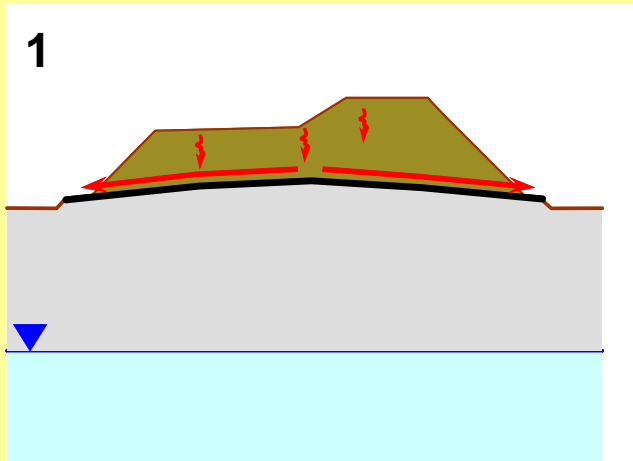
2 discarica in posizione molto piovosa e più esposta ai venti.



Impermeabilizzazione

1 l'impermeabilizzazione di fondo è determinante durante il deposito dei rifiuti e le prime fasi di postgestione

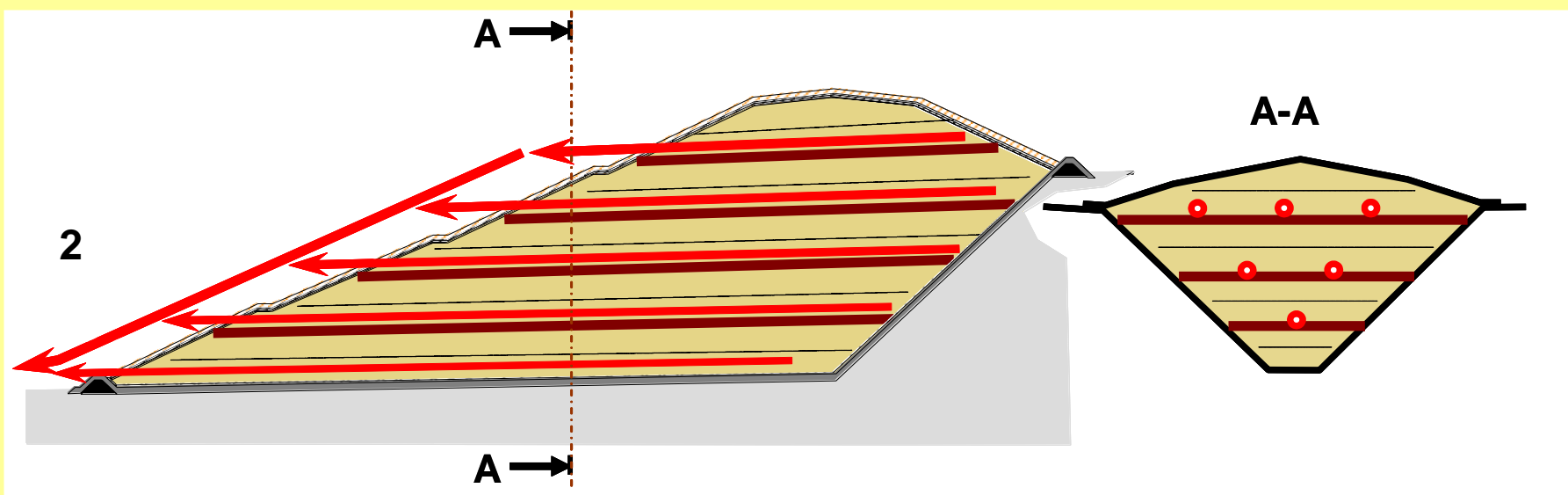
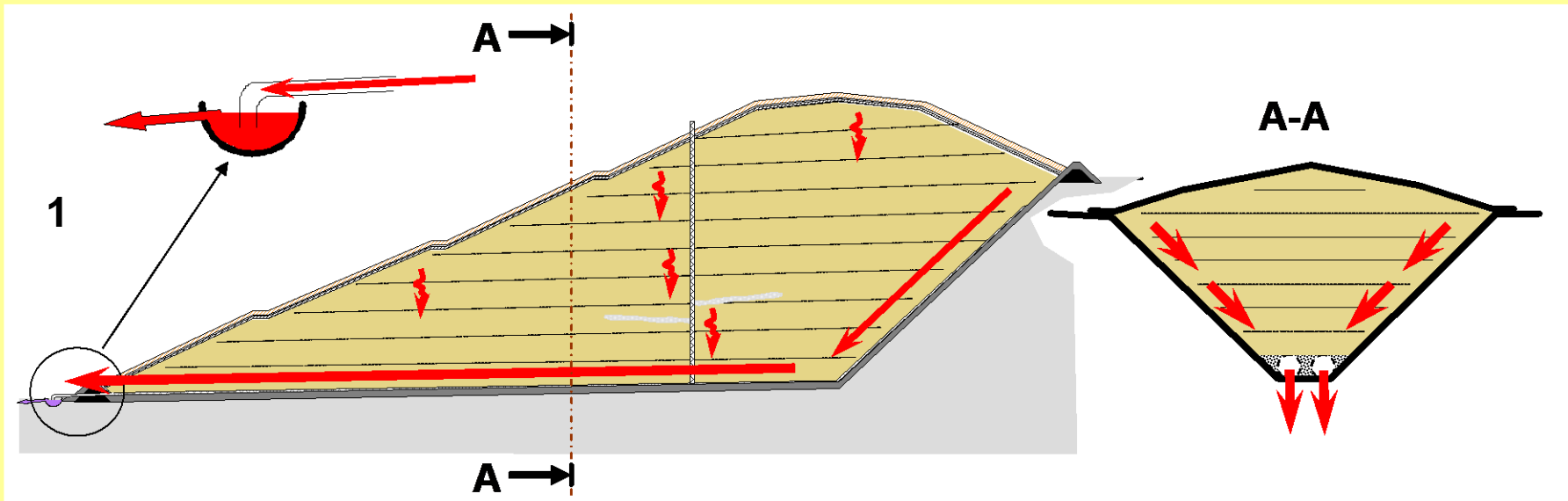
2 quella superficiale lo è a medio lungo termine, per allontanare direttamente le acque meteoriche.



Schemi di drenaggio

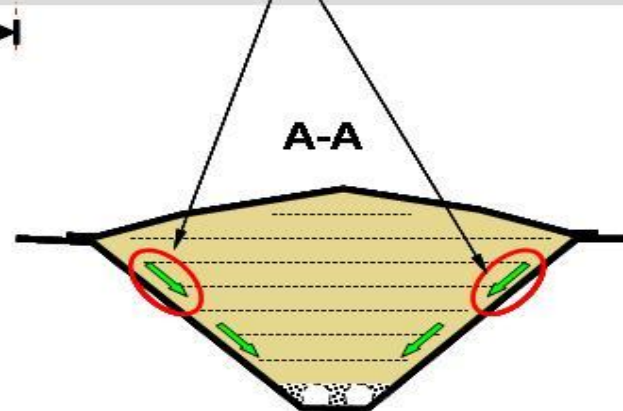
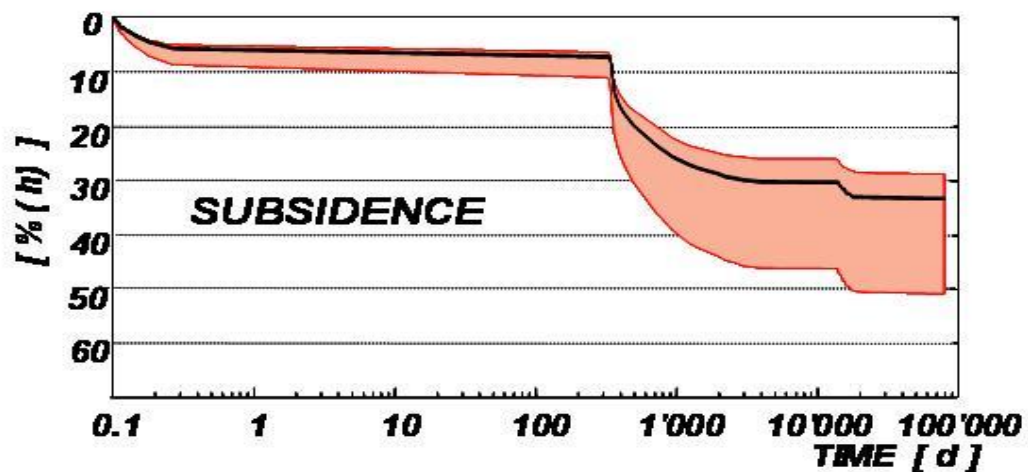
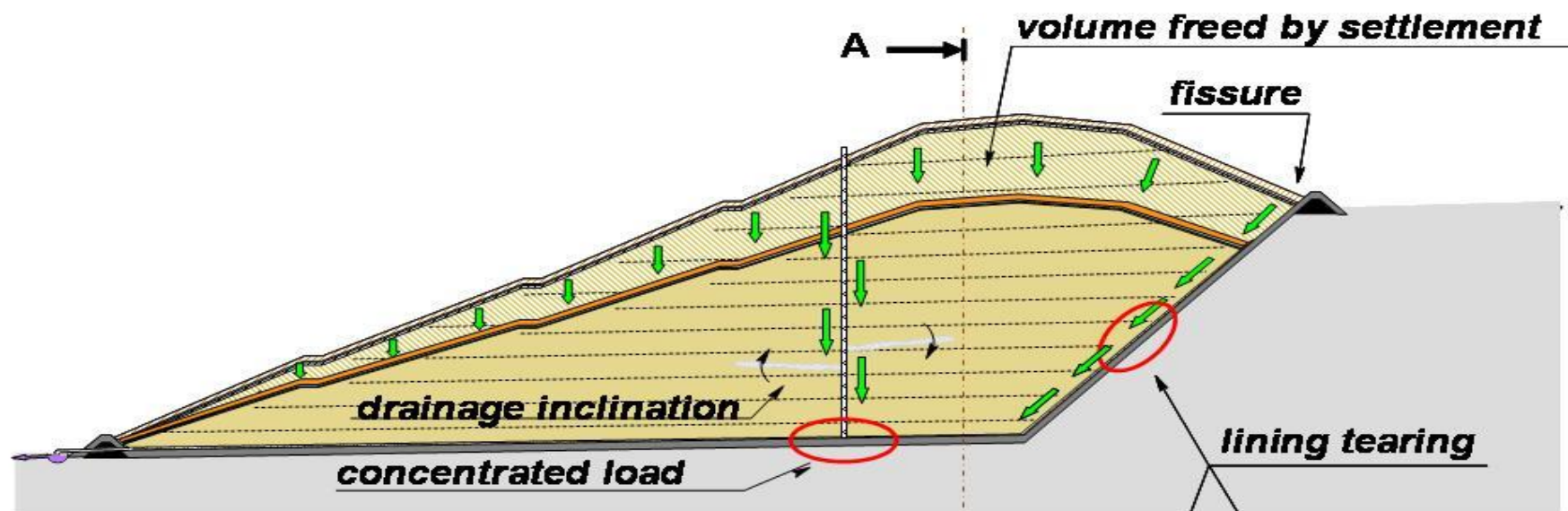
1 verticali

2 orizzontali



Assestamento

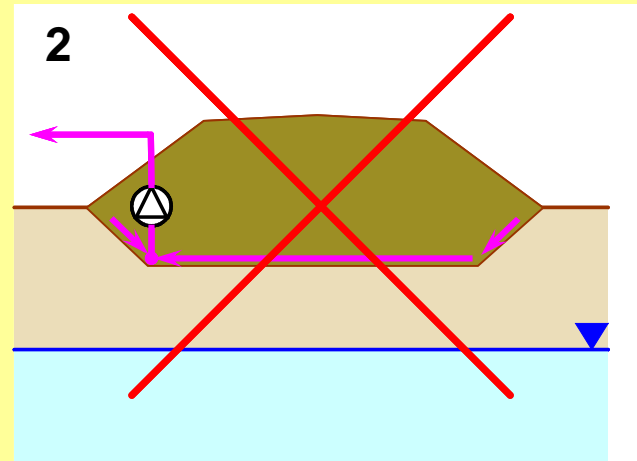
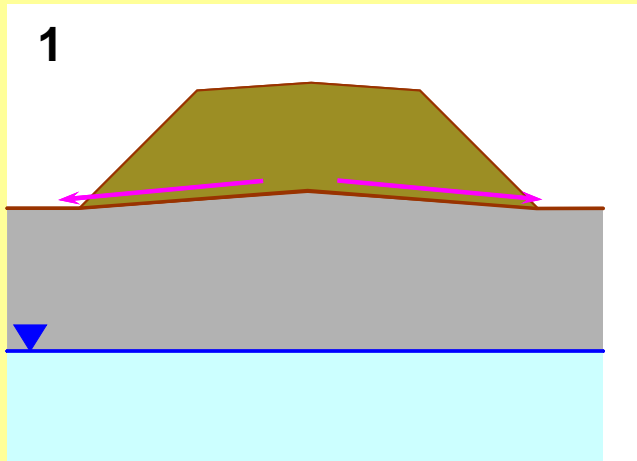
schema di assestamento con indicazione dei punti critici

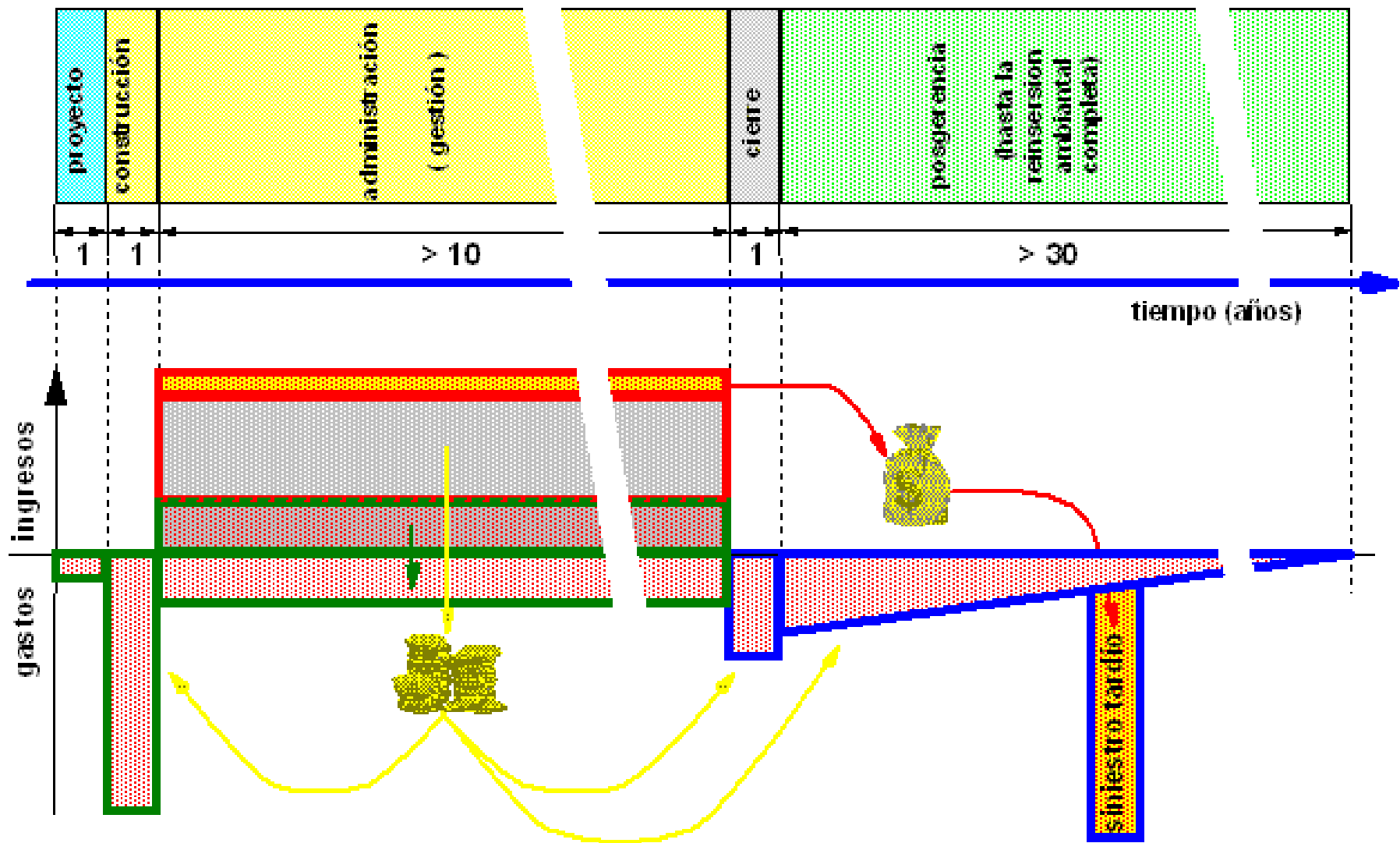


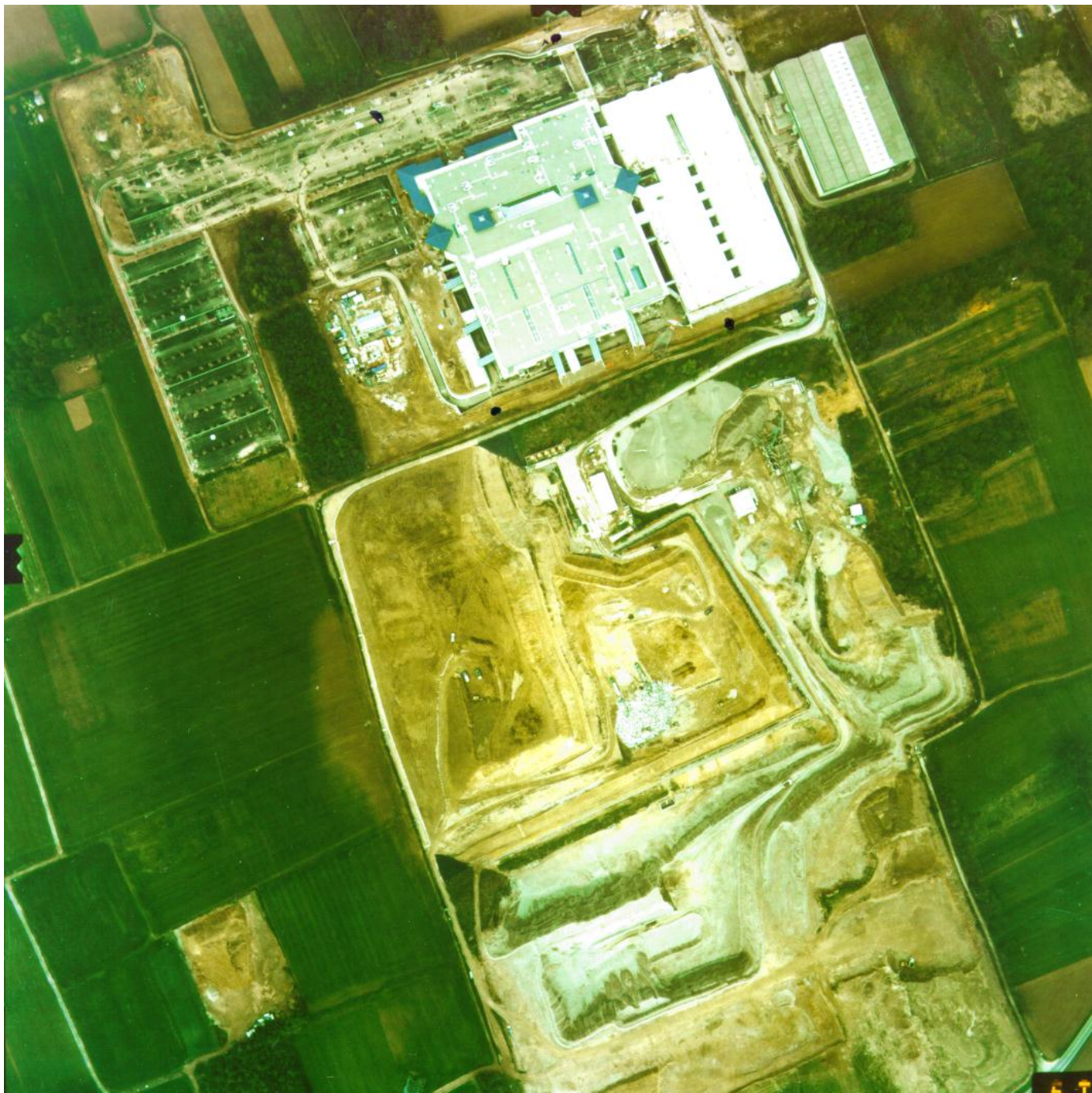
Deflusso del percolato

1 deflusso per gravità

2 deflusso per pompaggio, da evitare rigorosamente.



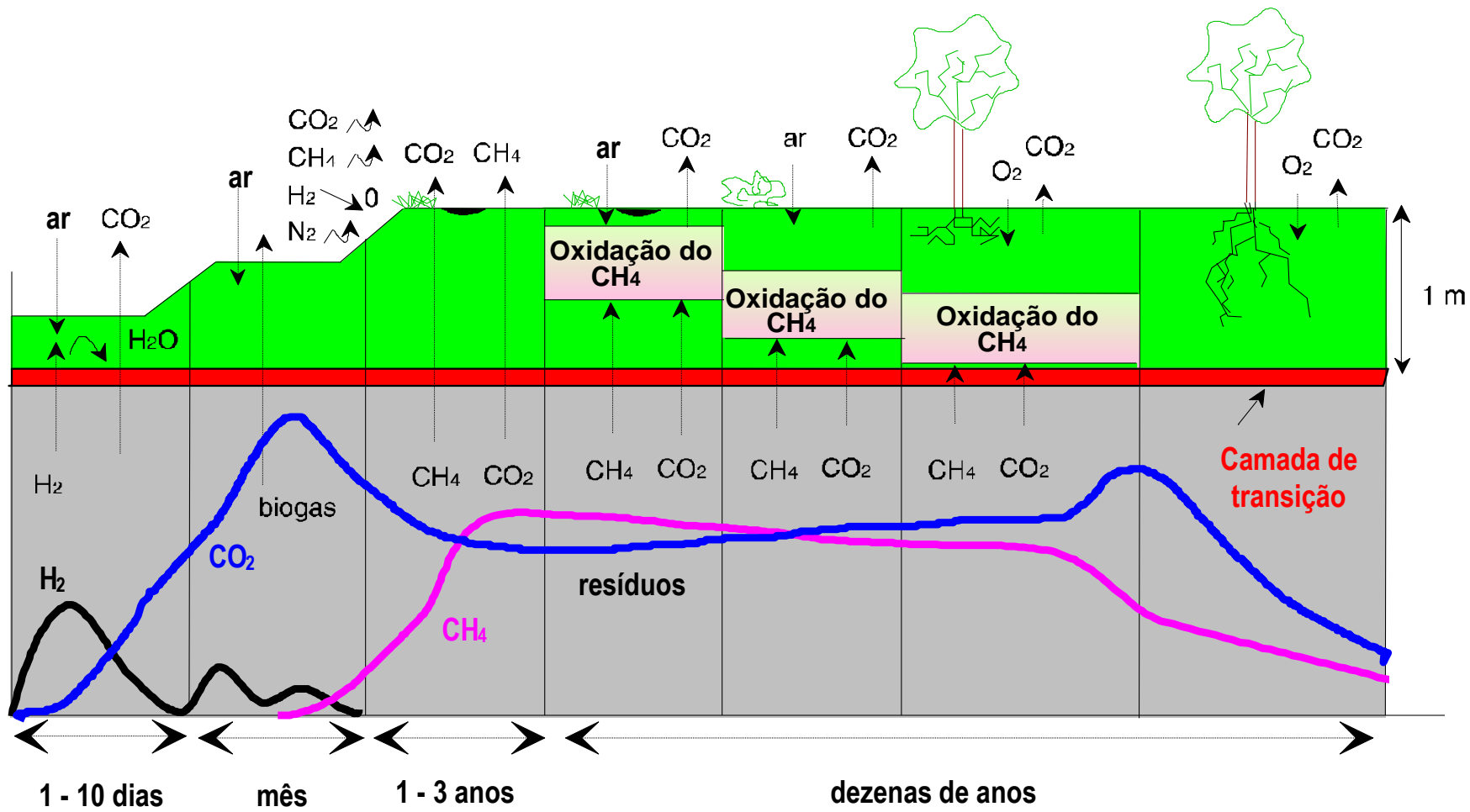




Vegetação
pioneira
Ervas

Ervas Arbustos Plantas com raízes pouco profundas

Vegetação Estável
Plantas com raízes profundas



1 - 10 dias

mês

1 - 3 anos

dezenas de anos

* CH₄+AR → CO₂+H₂O + N₂+ Ar

x H₂+AR → H₂O + N₂+ Ar







